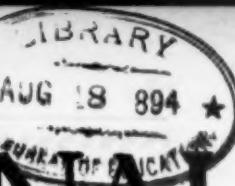


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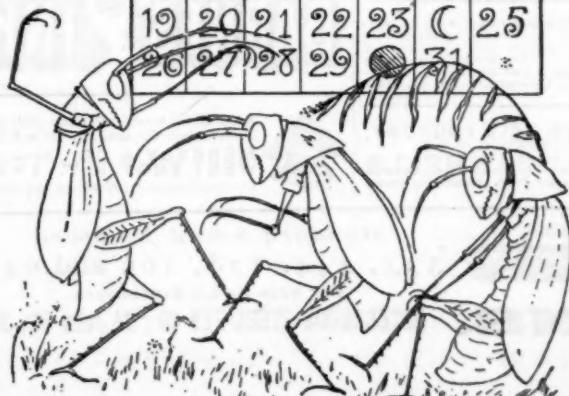
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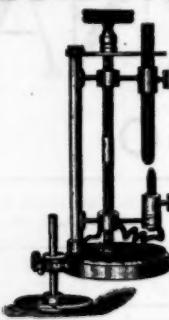
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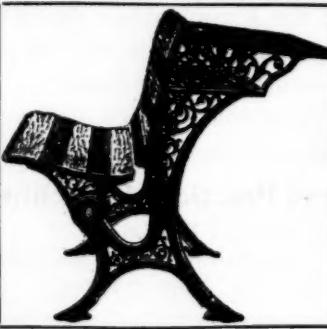
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For the Week Ending August 18

No. 5

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The business department of THE JOURNAL is on page 117.

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WO helpful papers read at the recent N. E. A. Park meeting, and treating of topics of particularly timely interest to teachers, are reprinted in full in this issue. Supt. Ward's paper on "A Few Changes in Elementary School Instruction" is one of them. It is full of practical school-room hints, and the many readers who have become acquainted with the author's plan of teaching reading, as described in THE JOURNAL, will appreciate the opportunity of reading this contribution. The other paper is on "The Handwriting of the Future." Prof. Ames handles the question of slanting *vs.* vertical writing in an original manner, that will suggest many new points of argument to the contending advocates of the two systems.

There are still many well-meaning people who cling to the belief that by appointing a teacher whose character is above reproach, who loves children and has a fair knowledge of the studies he is to teach, they are doing their full duty toward the school. They care little whether he is sufficiently at home in psychology, and particularly child study, to be able to form a correct estimate of the pupils' individualities, their inclinations and educational needs. Neither do they put much faith in the truth that the education of children is safe only in the hands of persons who have made a thorough study of pedagogics and are skilled in the art of administering to the peculiar needs of the children they are to educate. Place the children in an environment whose atmosphere is moral, and give them a Christian teacher who knows how to make them mind and has all he is to teach at his fingers' ends and everything will go well, they think. Perhaps the example of Santo Caserio, the assassin of the president of France, will set them to thinking and help to correct their mistaken idea.

The teacher of Caserio was Ada Negri, the poetess, whose works give her a high place in the literature of Italy. Her poems are tender, pure, passionate, and lyrical, and breathe the spirit of peace and love of mankind, the very reverse of the anarchistic hatred of mankind. She speaks of "knives unsmeared by blood," believes that "life is labor," and that "peace is forgiveness." It is reported that she trained Caserio to be worthy of representing St. John in a sheepskin gown in the religious processions of Motta-Visconti. The boy's surroundings up to the age of thirteen are also said to have been irreproachable. What then was lacking?

We firmly believe that the boy was never rightly understood, and that in consequence the most urgent needs of his active soul were either misinterpreted or wholly neglected. If he had been set to work at something that would appeal to his interest and lead it into channels where it would be constantly active in the service of his fellows, where he would learn to recognize the nobility of manual work, and would experience the blessings of a well-regulated social life, there could hardly have been the change in his conduct that prompted him at the age of fourteen to seriously injure one of his companions, to be known as a dangerous anarchist at the age of nineteen, and to become a bold assassin when hardly twenty-one. His teacher, though renowned as a poet, was never qualified for the difficult task put before her in his education. She never made a thorough psychological study of children, and lacked pedagogic knowledge, experience, and tact. Given normal children and normal conditions in general, such a teacher may well enough succeed, but where are these to be found? And where is there a school that has no abnormal children? The true teacher cannot be too abundantly prepared for educative work.

The great question of "Who shall teach?" received something like its due share of consideration at the Asbury Park meeting. The thing to be done now is to frame a bill clearly defining what qualifications should be exacted of candidates for teachers' positions and how to determine their professional fitness, and then secure its legislative enactment. There has been talking enough about preventing non-professional people from getting appointments and no more time should be wasted. The time is ripe for legislative enforcement of the just demand. As soon as this point is satisfactorily settled the question of permanency of position will present itself, and it is hoped will be speedily solved. The meanness of the system of annual appointment with its attendant evils cannot be impressed on the public mind as long as the suspicion is justified that a large portion of the people engaged in school work are not fitted to teach. The qualified teachers are the real sufferers under the present inadequate system. They should join hands and urge speedy and decisive action.

"No state is equipped with normal schools strong enough to give all the teachers for its public schools a complete higher education as teachers. Barbarous experiments by thousands are made on children in the country schools. The blind attempt to lead. The lame and the halt try to teach the beauties of motion. This is a crying evil. There ought to be in every Congressional district, if not in every county of every state, a normal school to be supported by the state, for the purpose of training teachers for the country schools."

A Few Changes in Elementary School Instruction.

By EDWARD G. WARD.*

The subject assigned to me for this paper; viz.: "Changes Wise and Unwise in Elementary School Instruction," proves upon examination far too comprehensive for successful treatment in the time allotted. A little reflection will show the most careless that the last generation has seen elementary instruction, so far, at least, as methods are concerned, revolutionized, in almost every branch. To write to the title given, therefore, would demand the preparation not of one paper but of many, the discussion of which might well occupy the whole annual session of this association.

In order then that there may be no incongruity between the contents of my very humble paper and the promise with which it begins, I have taken the liberty of changing the title to "A Few Changes in Elementary School Instruction."

Without further preface, I shall commence the discussion of my subject; and, since the whole is greater than any of its parts, I shall consider first what seems to me the most important change that has taken place in courses of study.

Our fathers believed, and taught as they believed, that the three R's must forever constitute the essential part of a bread-winning education; and beyond such an education, most of them saw little to be desired for the masses.

They did, as a measure of liberality, admit to this worshipful company the two G's and a little of history, and so, in the days when the older members of this association were children, the courses of study of the common schools included little, if anything, more than reading, writing, arithmetic, geography, grammar, and history.

Since that day, however, a great awakening has taken place. The conviction has become general that the more scramble for bread is the most ignoble of occupations. Everyone has come to understand that while the bread winning part of an education must be taken care of first, because successful bread winning is essential to everything else, it falls far short of accomplishing the ultimate purpose of education, the harmonious development of those germs of character that the Creator has implanted in every human being.

Now it has been believed for several generations, but generally believed by only the present one, that various branches of study affect the development of various faculties; one exercising, and so strengthening the perceptions; another cultivating the imagination; another exciting the emotions and making them potent for good; another developing the reasoning powers, and so on;—all, in so far as they present difficulties to overcome or call for self-conquest, cultivating the will, and accustoming it to operate in proper directions.

With the true idea of education before them, and the fact in mind that I have just stated, teachers and boards of education have then gradually added to their courses of study, branches that have seemed desirable, until now many of the courses have become so turgid as to be quite impracticable. As an example of what I allude to, let me enumerate the requirements of a certain city course, for the last half of the child's second year in school:—

Reading, regular and supplementary; spelling, including the writing of sentences from dictation; learning the use of certain capitals and punctuation marks; exercises in the use of pronouns, exercises in the use of difficult verb forms; description of objects, oral and written; descriptions of pictures, oral and written; reproductions of stories, oral and written; mental arithmetic; written arithmetic; human-body lessons (*i. e.*, lessons in hygiene); lessons on animals, lessons on plants; Nature lessons, (*i. e.*, lessons on some of the forms of land and water with a little about the sun, moon, and stars); penmanship, including writing

in copy-books; form study and drawing, including molding and the cutting out of paper forms; physical culture, and finally, music.

In each of these a definite ground is prescribed, and in each the class is expected at the end of a term of twenty weeks to exhibit a fair degree of proficiency. Is it any wonder, that several of these studies are perverted from their true purpose, and that many of the teachers in their mad haste to get the work of the term accomplished resort to mere cram, and to every sort of mechanical short cut? I know not, and I am sure that just so long as we attempt to force upon the little ones twice as much as they can digest, just so long will their minds be dazed rather than enlightened and their faculties numbed rather than strengthened.

The great change then in the courses of study has been the multiplication of subjects—a change most wise in its design, most unwise in the lengths to which it has been carried, the design having thereby been almost if not utterly defeated.

The remedy, of course, lies chiefly in a reduction of the number of branches taught; but just what to strike out is an exceedingly difficult matter to decide; for a review of the whole field fails to show a single subject that does not, or rather ought not to answer a useful purpose and fill a place that belongs to itself and itself alone. I am inclined to think on the whole that expediency would be best served in this matter by the exclusion as regular branches of study of botany, zoology, and mineralogy, and the retention of but a few of the leading facts of natural philosophy, and of only so much of physiology as is indispensable in the teaching of hygiene. I would also strike from all courses of study the provision requiring writing in copy-books, and insert in its place one providing that penmanship should be taught only in connection with other subjects. I would combine the study of technical grammar to, at most, the last two years of the course; and while I would extend arithmetical analysis as far as possible, I would shear arithmetic of all useless and obsolete tables and the commercial parts of it of all rules not commonly employed in actual business.

I select the sciences for exclusion, not because I fail to appreciate their worth, but because I cannot ignore the fact that not more than one-half the children that enter our public schools remain long enough to finish the fourth year's work, and that less than one-half of the remainder succeed in completing the grammar course. To the great mass of our pupils, therefore, the study of the sciences means at least a partial exclusion of something immediately available to them in their preparation for the great work of getting a livelihood,—a preparation that, in the very nature of the case, must take precedence of everything else.

I select penmanship for extinction as a separate branch, because I know it can be as well taught in connection with other things as separately, and because at least half the time now devoted to the copying of meaningless or at all events useless sentences, can thus be saved and applied to some better purpose. I select technical grammar for restriction to the last two years, because I am satisfied that all of it that is necessary in a common school course can be taught in those years, that little of it worth having can be taught earlier, and that half the time it now takes in the lower grades would serve a much better purpose if devoted to practical language lessons, while the other half might be applied to something else.

I need give no reason I think for the course I advocate in arithmetic.

And now, having thus briefly considered that part of my subject that deals with elementary instruction as a whole, I shall proceed to the consideration of a few changes in the teaching of individual branches; beginning with reading, as being beyond all question the most important.

Most of those present this afternoon, doubtless learned to read as I did by the alphabetic or a-b-c-method. Under this method, the first step was to teach the letters of the alphabet from *a* to *z*, inclusive. Next followed simple exercises in spelling, such as *b a*,

*Paper read before the Elementary Education department, N. E. A.

ba, b e be, etc. When the little ones had acquired a certain proficiency in the recognition of these meaningless combinations, they were introduced to the book, where they stumbled along, spelling out the words one at a time, and rarely in the earlier stages of the work, getting the slightest glimpse of a thought. The mechanical effort required for the mastery of each successive word, completely obliterated the impression made by the preceding one, and the child reached the end of the sentence with nothing in mind but the last word. It was not until they had read in this way many hundred times, and had learned, by dint of going over them again and again, to know the commoner words as wholes, that the children really began to read in the sense of getting thought from the printed page. And even then they read slowly and imperfectly, for before reaching that point they had formed a *habit of reading mechanically*, and we all know how difficult a thing it is to overcome a well-formed habit.

It was perhaps a quarter of a century ago, that some genius, perceiving that the great stumbling block in acquiring the art of reading was the separation of ideas by the intervention of mechanical work, conceived the plan of teaching words as wholes, so that the mind of the child, meeting with no intervening obstacle, might pass smoothly from idea to idea, and readily grasp the thought.

Thus was invented the famous word method,—a method which, in its legitimate application to the first work in reading, has done wonders for the little ones, but which, unhappily, not having been confined to such application, has, in the later stages of the work, largely, if not wholly undone the benefits it conferred in the earlier; with the net result, that to-day the reading at the end of the third year of school life, is little if any better than it was twenty-five or thirty years ago.

The old method, if it was clumsy and mechanical, at all events provided the child with a key by which, unassisted, he could get at new words himself. In requiring him to use this key, it also called upon him to work out to a large extent his own salvation, and so, practiced him in conquering difficulties and made him independent.

The word method does nothing of the kind. It keeps the child in absolute dependence upon some one else to tell him the new words, his own effort being confined to memorizing them, and the reading exercises in no way tending to develop in him a spirit of self-reliance. When, after the first term or two, new words come along, as they must, at the rate of ten or fifteen to the lesson, his memory fails to keep pace with the demands made upon it, and his reading lessons are filled with obstacles to thought-getting, in the shape of unlearned or half-learned words, quite as formidable as those that existed when the old method was used. The legitimate function of the word method as the sole means of teaching reading ceases at the end of the second or third month. If I were compelled to choose between it and the a-b-c method to do the whole work, I think I should choose the latter.

No one will dispute, I think, that the acquirement of the art of reading constitutes at least half of any education; for after all that may be done for him by others, the main work of educating any human being must be performed by himself, and reading so multiplies one's powers for the acquisition of both knowledge and culture, that to overrate its value would be impossible. No one, either, will deny the great desirability of such a method of teaching this art as will make an intelligent reader of the child well within two years of his first admission to school. Nothing else so matures a child's mind as reading. Some one, I do not know who, but he must have been a philosopher, has said, "A man is as old as he feels, and a woman, as old as she looks." To this I may add in not too grammatical phrase, but without fear of contradiction, *a child is as old as he reads*. Universal experience, I think will bear me out in the assertion that a child of eight that reads well is, for all school work, more than the equal of a child of ten that does not. If then we would shorten by a year or

two the time that children are obliged to spend in the elementary schools, we must above all secure early proficiency in reading; and since it is evident that this can not be obtained through the use of either the alphabetic or the word method, something better must be employed.

To my mind it is perfectly clear that the new method must be a combination of the word and phonetic methods, with a different order of procedure in the presentation of the latter from any that has hitherto been generally employed.

Such a combined method is now in use in nearly all the schools of Brooklyn; in many of which, most marvelous results have been obtained. In the schools in which the method has been mastered, the time formerly devoted to the acquirement of a reading vocabulary of two hundred words, now gives the children one of more than two thousand, while their reading is more spirited and in every other respect better than formerly.

The following is as full a description of this method, which we call the rational method as may properly be included in a paper of this length:—

The rational method is a peculiar combination of the word and phonetic methods. It utilizes each for that part of the work to which it is especially adapted. The word method is used, first as principal, because of its value in developing a habit of reading thoughtfully, and afterward as auxiliary, to remedy the shortcomings of the phonetic method, and increase the stock of word phonograms. The phonetic method, which is introduced by easy stages during the ascendancy of the word method, finally becomes itself the principal means of growth and progress. It imparts power while it supplies the key which the word method is inadequate to give.

The aims of the rational method are:—

1. To make the child not only independent in his reading, but *generally* self-reliant.
2. To enable him to read a vastly greater amount than heretofore in a given time, and thus acquire not only a fuller vocabulary, but greater maturity of mind.
3. To put him into possession during the first year or year and a half of school life, of a complete key to the language, so that, no matter how soon thereafter his schooling may cease, his ability to read will be assured.

The following are the leading features of the phonetic part of the work:—

1. *The presentation of the sounds and their symbols (phonograms) in a rational order*; that is, an order in which the easier precede the harder. The easiest sounds to use in phonetic reading are those that may be indefinitely prolonged, and the blending of which in words may therefore be most readily shown as well as perceived. These sounds, the rational method deals with first.

2. *The Teaching of an Initial Stock of Phonograms before any Phonetic Reading is done*.—This makes provision whereby, when such reading has once been commenced it may be carried on continuously and with sufficient wealth and variety of material.

3. *The Training of the Ear in the Perception of Phonetic Blends before Phonetic Reading is begun*.—This is accomplished by the teacher pronouncing words, sound by sound, and the children trying to determine in each case the word thus pronounced.

4. *An Extensive and Systematic use of Word-Phonograms and other Compound Phonograms*.—The difficulty the child experiences in determining a new word, is, in general, directly proportional to the number of parts he has to recognize in it. By the use, then, of compound phonograms, which being taught as wholes, are no harder to recognize than simple ones, hundreds of long and hard words are practically transformed into short and easy ones. Thus the word *lightning*, which the child learning by this method reads, *l igh t n ing*, he finds no more difficult than the short word *left*, in which also he has to recognize and put together four separate sounds.

5. *A Careful Grading of the Phonetic Words Introduced*.—The first phonetic words presented contain but two phonograms each, the next but three, and so on.

6. *The Gradual Introduction of Phonetic Words into the*

Sentence Reading.—At first but one such word is used to a sentence. This prevents the phonetic work from offering any serious impediment to the thought getting. As the child's perception of the blend becomes quicker and clearer, the proportion of phonetic words is constantly increased. Finally, when this perception has become automatic, or nearly so, the reading is made almost wholly phonetic.

7. Separate Daily Drills in the Recognition of the Individual Phonograms and the Reading of Single Phonetic Words.—The purpose of these is to cultivate expertness. No other part of the word exceeds them in importance; for without them, the average child would never acquire sufficient facility in sound or word recognition to make successful phonetic reading a possibility.

During the last ten years another change in the teaching of reading, almost as radical as the introduction of the word method, has been rapidly coming about. I refer to the correlation of this subject with other branches of study. The correlation of arithmetic with business forms on the one hand, and with drawing and geometry on the other; of geography with astronomy on the one hand, and with history and civil government on the other; of physics with chemistry and of both with the other sciences, in all the cases that have come to my notice seems to have taken proper direction and produced happy results. But the correlation of reading with other subjects has in my poor judgment gone quite astray.

Here the attempt has been mainly to correlate with the sciences of botany and zoology; and from small beginnings, in which bits of botanical and zoological information were deftly interwoven with other matter, we have at last come to a point where children of tender years are put into readers (or supplementary readers) wholly botanical or zoological.

These books, to children of a larger growth, seem full of interest. They are in general well written, and the matter they contain is of undisputed value. But with little children they have proved a failure; for, while failing to create a taste for science, or to any appreciable degree strengthen observation, they have had a bad effect upon the reading itself, in diminishing its power to interest. The reason is not far to seek. It lies in a fact that many educators seemed to have overlooked; that *young children cannot read for information*. Their capacity for attentive work in reading ceases with its power to amuse them and the sooner this fact is generally recognized the better for the children.

The stray bits of scientific information that they formerly absorbed with other matter aroused their curiosity and whetted their appetites, and so, cultivated a *taste* for scientific study capable of giving them a great impetus when the time for such study should come. But the steady scientific diet that has of late been forced upon them has resulted in surfeit and nausea long before the time for digestion has arrived. That there are exceptions to what I have stated, I am well aware; but the exceptions are enough to prove the rule and no more.

With what then would I correlate reading? Why, so far as stray and interesting bits of information interwoven with other matter go, with everything that has the slightest human interest or value, but in *particular*, with one study that I do not find in any school curriculum.

Now this brings me to another oversight made by educators generally that is even more strange than the one already mentioned—a clear oversight of the fact that *every child, both before he enters school, and for many years afterwards, is a most intense student (and not the less so for his study being unconscious) of human nature*. The actions and motives of his own kind, their pains and their pleasures, their struggles and their triumphs, have a hold upon the child's imagination not paralleled, nay, not even approached by anything else.

Woe betide those poor infants who, out of school, have, as too many of our little ones have, only depraved or brutal specimens of their kind to study and to follow as exemplars. Woe betide them I say, unless we can do something in the schools to counteract the evil influ-

ences that surround them and the evil tendencies they inherit.

I would, then, correlate reading mainly with this unconscious study of human nature, and thus make it the main instrument for imparting ethical culture; and since this particular culture is of all kinds the most valuable, and since the power of any impression to endure depends not more upon its vividness than upon the number of times it is repeated, I would have at least half the material for every reading book, from the lowest to the highest, selected with reference to its usefulness in creating a love of whatever is noble and elevating and a hatred of whatever is mean and debasing. There is no dearth of material; literature and history abound with stories of the kind that make youthful hearts beat high for honor and for truth, and these stories should form the staple of our little ones' reading.

Thus would a double purpose be attained; the stories drawing the child irresistibly to his reading, and the reading constantly stimulating the growth of his nobler faculties.

Penmanship next claims my attention, less as a separate branch of study than in its use as an auxiliary to other studies. I know not how it may be in the rural districts, but in city schools where classes are unreasonably large, and where, therefore, it is extremely difficult to keep such an oversight of individual pupils as to secure the proper performance of their tasks, the employment of written exercises and written recitations has now reached such proportions as to constitute at once one of the most marked changes, and one of the greatest abuses in elementary instruction.

During the last four or five years teachers and school officers have been appealed to, again and again to adopt vertical writing in the schools as a remedy for many physical ills that exist to an alarming extent among the children of the present generation, but were comparatively unknown among those of the last. Among these ills are shortsightedness, astigmatism, spinal curvatures, and distorted shoulders. All of these, the advocates of the vertical writing attribute in great degree to the oblique writing at present in use, and to the position which they assume it obliges children to take at their desks; and they add as a clincher to their arguments, that the vertical writing is clearer, more compact, and more rapid.

Let us briefly consider these claims:

First, as to the position. I do not admit that the oblique writing has anything to do with the right and left positions so strenuously (and so righteously) objected to. On the contrary, where children take such positions, they do so either as the result of training based on false theories, or because, through a niggardly economy of space, their desks are made so narrow that it is possible to get their books far enough from their eyes only by pushing them away sidewise. A practical accountant who takes a side position at his desk, though he *does* write obliquely, is as hard to find as a needle in a haystack.

Second, as to the astigmatism. This it is claimed is due to the different directions in which in oblique writing the eyes have to look at the same letter. There seems to me to be no more in this argument than in the other, for in vertical as well as in oblique writing, the angle of vision for either eye must always be different from that of the other. Even where the letter is in the middle of a line and directly before the eyes, the two lines of vision form a sharp angle at the paper; and the inclination of the writer to keep adjusting his paper so that the work may be at all times directly before his eyes corrects this difficulty quite as much in the one kind of writing as in the other.

As regards the other three claims, that the vertical writing is at once more legible, more compact, and more rapid than the other, while I cannot admit the last I freely and willingly concede the other two, the truth of which, if it has not made me an advocate of this writing, has at least prevented me from being numbered with its opponents.

If, then, it may be asked, I am not opposed to the introduction of the vertical writing, why have I taken pains to dispute some of the leading arguments in its favor. Because I believe that these arguments have taken such strong hold upon the minds of teachers and others concerned with elementary education, that there is danger of the new writing being relied upon *exclusively* to correct the physical ailments attributed, and, as I believe, improperly attributed to the present style of writing.

The remedy needed is a much more sweeping one, being nothing less than the cutting down of the written work that children are obliged to do, to perhaps one-fourth of the present quantity. The children of former generations wrote the same oblique hand that is taught to-day; yet they suffered to no marked degree from either eye troubles or uneven shoulders or spinal curvature. These ailments, then, that we all so greatly deplore among the children of to-day, are not, in my opinion justly to be attributed in any great degree to the *style* of writing employed, but rather to the great and unreasonable amount required. It would not be difficult, if time permitted, to show some directions in which this amount might be curtailed without detriment, and in some cases with absolute benefit, to the work; but as I have already reached the limit assigned to me, I refrain from trespassing further upon your patience.

Hand-Writing of the Future.

By D. T. Ames.*

No one need be reminded that hand-writing in point of style and quality is a matter of education, habit, and environment. This is just as true of nations as of individuals, and the hand-writing of the future will be just what the business and social conditions of the future demand. In these days when labor saving devices of stupendously revolutionary import have become so common as to almost cease to excite wonder, no one has a license to say how long our present industrial system, and conditions will last—how long it will be before the urgent commercial need which called the typewriter and shorthand writer into being will invoke and materialize some still more potent agency to relieve the busy pen and clicking keys. But I apprehend it to be tolerably safe to say that so long as one shred of our present commercial and social fabrics survives every person born into the world who is destined to make the slightest stir in it or be of the slightest use to it will find the pen probably the one most indispensable of all tools he will have to employ. If I properly interpret the subject assigned to me by your committee, it is not to speculate on what modifications of handwriting may or may not be required, contingent upon possible inventions and radical changes of method that we now have no hint of, but what kind of handwriting will be developed by conditions of the near future that are foreshadowed by our present remarkable rate of progress.

It is well on toward half a century since Father Spencer, of ever-blessed memory to all who have the slightest tincture of penmanship in their blood, began the work that so completely revolutionized the handwriting of America. I speak of Mr. Spencer in this connection because, while others had a share in the work and in the glory, his was undoubtedly the dominant mind; and it is probable that no other person who ever lived has influenced the handwriting of so many millions of people. It is not necessary to go minutely into the conditions antecedent to this writing revolution. Suffice it is to say that Mr. Spencer and his fellow reformers recognized that changed conditions made imperative radical changes in one of the most important business auxiliaries and instrumentalities. The pulse of business was everywhere being quickened by the birth of those gigantic inventions which have been the industrial glory of our times. The arteries of trade began to throb with the

impulse of steam and electricity. Pens that were good enough to keep apace of the easy going stage-coach of our grandfathers were completely distanced by those wonderful new contrivances of intercommunication. It became necessary to write better and to write faster—and necessity is a mother that never becomes barren. In preparing the writing system which Mr. Spencer gave the world, he had the forethought to look deeply into the most advanced business conditions of his own day. The necessity for better methods of writing, to which I have referred, had existed for some time, and its best development at that period (probably at all periods) was to be found in the counting-rooms of the large commercial houses. We are told that the slant of Spencerian writing, fixed at 52° and held there up to the present day, the slant that has been followed in nearly all our copy-books published since then and has been taught literally to millions—was based upon an examination of a large number of slips gathered from the advanced commercial houses of that day. This is but a single detail, but more than usual importance attaches to it now that question of slant—for the time being, at least—is the most discussed of all details pertaining to penmanship.

I have said that the style of writing promulgated by Mr. Spencer and elaborated and perfected by hundreds of others since his time, but still retaining its strong original frame-work, is considered the standard to this day by the vast majority of American people. You all know how within the past year or so our educational press has teemed with articles relating to vertical or unslanted penmanship. Comparisons of the two styles and discussions of their respective merits, almost fierce in their partisanship, have come to the attention of all who are specially interested in this subject. We are told on the one hand that slanted writing is a relic of the past; that it no longer fits modern business conditions, and what is more startling, that it is responsible for a large percentage of the physical ills to which flesh is heir. On the other side we are asked to believe that vertical writing is a mere passing fad; that it is too slow and stiff for modern requirements, and has not one point of superiority over the style which we have used for so many years, while its hygienic claims are derided as a bugaboo contrived for riding through public fear into public favor. I have been interested earnestly in this controversy and have published in the *Penman's Art Journal* a great deal relating to it from the most competent men whom I could find on both sides of the question. After carefully digesting all the theories and information adduced, I can but believe, like the blind man of Hindustan who went to "see" the elephant, that each side is partly in the right and partly in the wrong. I shall not weary you by going into the minutiae of this discussion or of the claims of the respective partisans. It seems to me that the germ of the whole thing with particular reference to the handwriting of the future lies right here:

Have we arrived at a point in our industrial progress where it is proper to stop and take an account of stock of our handwriting—to see just where we stand; to put our heads and hands together; to pool our experience, knowledge, and skill, and see if, working together, we cannot produce a handwriting harness that will fit more snugly to the most advanced business conditions of to-day and those which are likely to crystallize within the immediate future?

Taking a cue from Father Spencer, I have for some time past been engaged in collecting data from large business establishments where handwriting is put to its severest test and is least affected by the now almost ubiquitous typewriter. The data is in the concrete and wholly trustworthy form of writing done under the usual business condition without any consciousness on the writer's part of the purpose for which it was required. It has seemed to me that the best test afforded by any kind of business is that of the clerks who receive with a pen telegraphic messages sent at a high rate of speed. Probably no other business which demands the use of a pen to-day requires such a high sustained rate of speed combined with such an indispensable requirement of

* Paper read before the Business Education department, N. E. A.

legibility. The receiver's bread and butter depends upon his ability to record the message as fast as the operator at the other end of the line can send it in—and this means in some cases over fifty words a minute, very frequently as much as forty-five. Not only must he record the message with absolute correctness but the record must be so plain that no one can mistake it. Apart from that, it is "new matter," and generally matter quite out of common, on account of the effort to secure the greatest brevity in preparing telegraphic dispatches. A severer test of the capabilities of handwriting could not exist under present business conditions.

Just over Broadway from the *Journal's* office is the great central headquarters and distributing agency of the Western Union Telegraph Co., whose ramifications put a network around the globe. A thousand operators are at work in this building, 850 in single room. A week or so ago I visited the superintendent and obtained permission to procure actual specimens of the handwriting of a large number of these operators. These specimens represent actual business work. They were not made for show, and were written upon the order of an official of the company, like other work in the usual course of business. The number of slips which I secured and deem sufficient for the purpose in view is 54. The speed of the writers would vary from scarcely 20 words for some of the beginners or those in subordinate positions to 45 to 50 words a minute for those in the most responsible places. There is not one illegible specimen in the lot. There is not one that does not show remarkably free and easy movement, or betrays evidence of finger movement. There are dozens which to the casual observer might well be taken for the handwriting of a single person, showing undeniably as anything could that the requirements of that business have evolved with remarkable precision a type of handwriting which sacrifices all unnecessary form and motion, and has the best right to be called a genuinely automatic "natural" business hand.

An analysis of these specimens from the standpoint of slant is extremely interesting as illustrating the modern tendency under conditions related—and it is only by modern development that we can judge the future. I find that these specimens lend themselves easily to a separation into four main groups. The smallest of these groups comprises three specimens, the slant of which is distinctly backward—backhand, as we are used to calling it. The next group comprises five specimens, the slant of which is around what we now call a standard—52°. Yet only one specimen of the five has a slant as fully pronounced as the present standard. Some of the letters in this specimen slightly exceed 52°. The third group has twenty specimens, about forty per cent. of the whole—and the writing is almost absolutely vertical. The fourth group has twenty-six specimens—just one less than half the entire lot. Of this lot the most pronounced slant does not exceed 60°, and the specimens run the scale from this figure to 85°. Most of them would answer to the scale between 60° and 70°. Perhaps the most remarkable point in connection with these specimens is that only one out of 54 shows a slant as great as that which we have known for half a century as standard; and even some of the letters in this show a tendency to greater erectness.

Now I think these specimens show as conclusively as anything can that the greatest speed, the greatest legibility, the greatest "naturalness" of motion when the writer is thrown upon his own resources, and made to do his level best, do not culminate in a slant of 52°. I will not now undertake to say just at what point this natural culmination of slant is, if, indeed, it does not vary largely with different individuals; but it is safe to say that future revisions of copy-books will be in the direction of less slant. The material referred to, together with a vast amount of other such data obtained from business houses, from public schools, business colleges, etc., and from students and business men in England, France, Germany, Switzerland, Latin America, and other countries, is now in the office of *The Penman's*

Art Journal patiently waiting to be raked over and digested with a view to a series of papers, which I hope to find time to prepare in the near future.

In conclusion I will say that while I am far from being convinced that the time is near at hand, or ever will be at hand, when our people as a rule will adopt a rigidly perpendicular style of writing, I am nevertheless convinced from close observation that some very important modifications are probable, indeed are essential, if the handwriting of the future is to serve its age as faithfully as our own times have been served by the handwriting of the past half century.

Teaching and Training.

By ELLEN E. KENYON.

[CONCLUDED.]

I have written thus far of teaching, but this is only half of the teacher's work. The other half is training. Teaching is to the mind what feeding is to the body. Training, whether of mind or body, consists of guidance in proper exercise. Training applies to conduct. Its aims are skill and habit. It deals mostly with those processes that can be reduced to mechanical order. It induces the mind or muscle to perform the given operation in the most direct way, with the least expenditure of mental or muscular energy. This is done at first under a high effort of the will. Training causes the process to be repeated, in the same orderly manner, again and again, with a constant increase in success and a constant diminution in the amount of will power required. The mind or muscle, under training, acquires a *habit* of moving in a certain way.

The habit of mind by which we observe carefully, weigh reflectively, and at least partially formulate before attempting to express, is a result of training. The habit of body which distinguishes a soldier's walk is a result of training. Most of our *orderly* habits are the results of training, though it may be self-training; a few are the results of accidents that have thrown us repeatedly into the same line of action; it is an open question whether or not some are directly inherited. I believe they are; but even in this case "the things we have to do are learned by doing them."

The first step in the process of training is accomplished when skilful action has become habitual. In some lines of training, as in the solution of problems that come before us frequently or periodically but not constantly, this is enough. There is one shortest mode of computing interest. If a man is ever going to pay or collect interest he should know this method. He should not only know it (this the *teaching* gives him), but he should have the *habit* of going through the process by the right steps whenever a problem in interest presents itself. If the *training* has given him this habit, so that he does not have to stop every time to reason out the process or waste time in putting down the wrong quantity first, the training has proceeded far enough.

But there are other departments of action in which it is desirable to quite eliminate the will as a factor and free the attention for simultaneous work. Baby must be taught to take his knife in his right hand. He must be not only taught to do it, but trained until it becomes a habit. More than this, he must be watched lest habit too lightly fixed, relax its hold; watched until the act, by a thousand repetitions, has passed quite out of consciousness and become automatic. With a similar long-sustained care should the pupil be trained in writing and spelling until, with the thought in his mind, the words flow from his pen automatically. Training in correct speech, and in reading, too, as far as the word-calling is concerned, should reach this point. Minds were made for thought; eyes and vocal organs were made for mechanical subservience to mind, and that their direction may occupy as little as possible of the current energies of mind, this subservience should be reduced to the automatic in all limited lines of action. English speech is limited, as far as the vocal organs are concerned, to a given number of articulate sounds. The free vocabu-

lary, too, of conversation and literature is limited, ordinarily, to a memorizable number of combinations of these elementary sounds in words. The vocal organs, then, in speech and reading may be, and are, reduced to practically automatic action, so that the mind does not have to pause in thought to direct their play. Not only this, but in reading the visual sense must be trained to instant perception of word-forms, so that the mind proper may be free to busy itself with their meanings only.

It would seem that training must end here. The action of the mind in grasping meanings can never be automatic, because the meanings of words vary with the ever-changing context, and a constant play of judgment is needed. But wait! Let us see whether habit has anything to do with intelligence in reading.

The boy in the primary class "reads," "Do—we—go up" in exactly the same tone (I came near saying tones) that he would use in "reading" "up—go—we—Do," and with about the same internal gain, as far as thought is concerned. He continues this style of delivery through successive readers, all too difficult for him at the time he takes them up, and none illuminated with any sort of critical treatment by the teacher, or discussion by the class, or acting out by the pupils, or correlation with any of his own experiences, that might bring the dead pages to life. If, as he "reads," a casual thought enters his mind, borne on the breath of the words he is calling, he allows it to pass as a sort of anomalous experience that is not likely to visit him very often. The idea of *looking* for anything of the sort does not occur to him. If he troubles himself little about the meanings of the words, singly or in phrases, the sentences trouble him less and the whole meaning of the composition still less. (I am not speaking of the bright pupil or even of the average pupil, nor yet of an imaginary pupil, but of the type of a class—large or small according to the average of teaching skill—of pupils that somehow get through our schools in spite of all the examination tests.)

This boy's *habit* is to call off the words of the lesson, giving his whole available attention to their pronunciation, and to content himself if the teacher allows him to sit down at the end of his paragraph. Does he want teaching or training? Is it that the subject matter of the lesson is really beyond his apprehension, or is it that he pays no attention to it? It is usually the latter. If he were given an easier reader and trained to read silently for the thought in a paragraph or sentence and to give it in his own words as a test of his readiness for oral reading, he would in time acquire the habit of reading for thought. If he were practiced in relating paragraph to paragraph and finding out the central purpose of the composition, he would gradually lose his painful consciousness of the words as separate units. He would learn to read in phrases. The voice would in time take on natural modulations of its own accord, more or less justly interpreting the author's thought, each part colored by all the rest, the light and shade flickering more doubtfully in the beginning of a fine literary composition and taking on bolder outlines as the whole purport of the work grows plainer. This is not guess work. It is not theory only. More than one successful teacher has thus trained "dull pupils" to intelligence, until pupils who seem destined to pass by the best things of life unnoticed have changed that habit of listless inattention to one of alertness, drinking in the strength and beauty as it comes along—assimilating it—growing upon it!

Mental, like physical, assimilation depends upon two things: vigor and appetite. Vigor, in turn, depends upon exercise, and appetite upon acquaintance with foods. We can have no strong appetite for what we have never tasted, or for that with which we have been surfeited, or for that which falls below our criterion of taste or lies too high above it to be appreciated. Shall we, then, feed coarse food to the coarse and milk and water to the simple, or cultivate the taste of both until they discern the finer flavors and desert the lower standards for the higher?

From all that the mind is capable of assimilating we must choose that upon which it will grow in the right direction; and of all the exercises by which human power can be strengthened those must be chosen which will strengthen it for good living. Thus, in order that children may be taught to read, to read for thought, for thought which they can assimilate, for the thought by the assimilation of which they will grow in the right direction; and that the exercises of reading may train the powers that go to make up noble character, teachers of insight and enthusiasm have striven to collect, to arrange, and to make accessible all those gems of literature whose thought is within the grasp of children. The task that was difficult in the higher grades became more so lower down, but even in the baby class the dry chips of the primer are giving way to nursery classics and nature talks.

In this field of education teaching and training are so closely related that for the most part the teaching is training and the training is teaching. This is due to the fact that the material is constantly fresh, the mind continually reveling in novelty. The very great variety of method and device used in teaching arithmetic makes the same true, to a more limited extent, of this line of educational work. The farthest remove in the other direction, the greatest separation of teaching from training, perhaps, occurs in the teaching of penmanship. The mind-growth that can be got from this branch comes with the assimilation of ideas of *form* in simple curves and in combinations, and of such *relations* as may be touched upon in explaining the derivations of the curves; with the formation of a taste for neatness in execution; with the recognition of the first necessity of legibility; with the exercise of the will and conscience in acquiring a habit of uniform effort, and with the growth of that habit itself. The first part of the work belongs distinctly to teaching, the latter part distinctly to training. But training in this instance extends to muscular action, which must become first accurate, then skilful, then rapid, then all these habitually, and finally automatic. It would seem that in the imparting of a good hand in writing the trainer has a longer, a more difficult, and a more important task than the teacher.

Training, as compared with teaching, is a mechanical art. It requires a knowledge of pedagogical law (conscious or unconscious—for there are successful intuitive trainers who follow the law without being able to distinctly see or to formulate it); it may be skillful or unskillful, good, or bad, and it admits of some variety and originality in method. But teaching is *all* versatility. Versatility ruled by method and method ever disguised in new forms. One of the cardinal mistakes in common school practice is to substitute the ideal of training for that of teaching, doing the same thing in the same way, day after day, forgetful that, while the muscles and the lower mental powers may submit to monotony without weariness the intellect craves novelty continually. A change of sauce for the same pudding may satisfy it, but it *will* have some change. Its punishment for monotony of presentation is inattention, and the teacher who does not see the law, her violation of it and the consequence, and who insists on work so dreary with sameness as to be mere drudgery will get nothing but drudgery—mechanical obedience, in which there is no life and no growth. Live intellectual work, thus reduced to mechanical drudgery, is one of the most miserable results of the employment of untrained teachers and of the thus necessitated close organization of our schools; for tyrannical programs, as well as dull teachers, have much to do with it.

Our normal schools teach their pupils in the department of theory and train them in the practice department. To put the question before naming the pupil who is to answer it, is a practice reasoned out in the theoretical department of training schools and reduced to habit in the practice department.

"We learn to do by doing" must be the motto of the trainer, as the first law quoted must be that of the teacher. "That education is incomplete which does not pass

over into action." This is the law relating the two. It is of little use observing if we do not think; thinking if we do not act; learning if we do not apply; getting if we do not give; teaching if we do not train. One of the newer dangers in educational practice is that of exalting observation for its own sake and stopping short of the complete educational chain, which is to *observe*, to *THINK*, and to *EXPRESS* in word or work. Another modern error is the opposite of the old-fashioned one discussed some distance back, in which the mechanical teacher became almost exclusively a trainer. The newer fault is to go on teaching and reteaching the same thing to the same child, instead of training him to apply what he knows so well. I have seen a trained teacher lead a careless child by the same series of questions to the same result again and again, when, if pressed a little harder, he could have answered without the teacher's guidance, without the concrete help, without even the conscious process. The fact that three and one are four had been well assimilated and was a fixed part of the child's mental growth. It was not necessary to "develop" it again for him. The careless answer was the result of momentary inattention, not of ignorance. The fact that this carelessness was habitual called for more attractive variety in application and for exercises to train the attention, not for re-development of a fact already known. The course pursued was exceedingly harmful, encouraging the mental indolence that already threatened to become a serious fault and training the child to depend on the teacher to take all his steps in thought for him. Such work gives color to the objection raised by conservatives to the "new education," that "it makes children dependent." The new education, rightly understood, is the outflow of the two laws here chosen for discussion; and, rightly applied, it makes children INDEPENDENT!

Echoes from Teachers' Meetings.

It is easy to see the source of a widespread prejudice against technical training. The history of civilization has been the history of masters and slaves, of caste, of contempt for labor and for all useful arts. Every one of the technical professions had its beginnings in the crafts, and the present expert and chief engineer had as a prototype a man in overalls, with horny hands and a dirty face, who presided over some enginery which was not in the books and which was regarded as decidedly ungentle.

Milton placed Memnon, the first ante-tellurian engineer, among the fallen angels and sent him

"With his industrious crew to build in hell."

The engineer is by nature an iconoclast. He has small respect for the traditions. He bows not down to the "Tyranny of the Ancients." His glories are in the future. He looks forward, not back. He does not hesitate to smile at the puerile fancies of people who in the "Youth of the World," created gods and demi-gods in order to account for phenomena which bear no comparison with the exploits of modern engineering. The accomplished engineer generally reciprocates the prejude dice I have mentioned, for he cannot understand how the worship of the ancients can be really serious; it seems to him three-fourths affectation.

This prejudice was fostered by the high wall of separation which at first kept the technical and the liberal branches of study far apart. That wall, I am happy to say, is fast tumbling down, and men are rapidly scrambling over it in both directions. It becomes us, from our various vantage grounds of influence, to encourage this evolution of a better feeling, a more intimate acquaintance, a mutual respect, and a common zeal for whatever is broad and high and fine—CALVIN M. WOODWARD, of St. Louis.

It cannot be controverted that Latin, as some one has recently written, is the most valuable and loyal handmaid in securing that accurate and discriminating

use of the English language which is the sign and seal of the educated and the cultured.

I therefore deprecate the force and fervor of that movement, now gaining strength, which would permit some modern language to usurp the place which rightly belongs to Latin, and for which there is no adequate alternative.—Ass't. Supt. A. F. NIGHTINGALE, Chicago.

In child study there are naturalists, specialists and co-ordinators. The naturalists are the general practitioners (school teachers, etc.), the specialists are the experimenters (physiological psychologists, etc.), the co-ordinators are the educational thinkers who make use of observation and experiment for thinking on material. Just now we are most in need of naturalists—general practitioners that report *cases*, with minutely recorded symptoms. Statistical and other mass experiments are of little avail unless child-nature is studied by means of authentic facts (doings and sayings) of individual children whose history is known. Character estimates ("sizing-up" of the child by the teacher) have all the faults of a subjective and unscientific method; their results are of no possible use to the profession at large; they lead to misplaced confidence in the mystical "intuition" of the "sizer-up." Ticketed collections of sayings and doings are very valuable, but are to psychology (the science of character) what dried and stuffed specimens are to the biologist. Vital phenomena must be studied in the living character organism. The records of physical facts, and of doings and sayings of individual children whose life-history is known, are just now of the greatest importance to the practitioner, as well as indispensable both to specialist and co-ordinator. Let us stop studying "the child" and study children.—Supt. THOMAS B. BAILEY, Marion, S. C.

Science Study.*

Science teaching may well begin with a study of the lives of such men as Agassiz and Faraday. I do not agree with those who say they do not wish to make scientists when they teach science. Our chief aim in teaching science should be to develop the scientific spirit. The scientific method has turned the world upside down, or right side up, as you choose to put it.

I. Science studied by the scientific method develops the following characteristics of mind:

1. The observing faculty or the habit of investigation.
2. A constructive imagination.
3. A judicious conservatism in accepting conclusions, a desire to examine the evidence.

4. Patient carefulness in performing; a painstaking characteristic developed by the exercises of a well-conducted laboratory.

5. Common honesty with one's self.
6. Common sense and "gumption."
7. The capacity for earning a living.
8. Reasonable ideas as to what constitutes a good living.

9. The enthronement of reason above authority.
II. The aid which the study of science renders to other studies in the schools:

1. Its effect upon one's use of language and one's interpretation of language.
2. Its aid in the rational study of geography and history.

3. By developing habits of painstaking accuracy it removes the greatest barrier in spelling and writing, viz., carelessness.

4. Physical science is the very embodiment of mathematics.

III. How the study of science should be introduced into the schools:

It should be prescribed only in cases where efficient teachers have been provided. It should begin in grades below the high school. It should be *intensive* and *extensive*, but primarily the former.

* Report to the Regents Convocation, Albany, N. Y., July 5, 1894. Abstract of paper by Prof. John F. Woodhull, of the Teachers college, N. Y.

Editorial Notes.

The system of teaching reading to beginners, which has turned so much attention toward Brooklyn of late, is outlined by Prof. Ward in his *Asbury Park paper*. We print the address in full because it will be of especial interest to a majority of our readers, throughout; but in this feature will be found an answer to the question "What is this new step that Brooklyn has taken in the line of reading?"

The aim of the college course of study is to turn knowledge into wisdom.—*Harris.*

The *Educational Gazette* writes: "Every true educator will sincerely mourn the death of Dr. Jerome Allen, at his home in Brooklyn, on May 27, 1894. His departure leaves a vacancy in educational circles, which can never be filled. He has been a life-long educator, and of him it can be truthfully said, his influence has always been for good."

War at the best is cruel, yet there is a vast difference between the methods of warfare in the East and in Europe. In warfare the Oriental is a relentless conqueror who rarely shows mercy to those in his power. This is illustrated by the recent beheading of the Chinese deserters in a body and the sinking by the Japanese of the human freight of the Chinese transport. Another case in print is the maltreatment by Chinese of Japanese passengers on a British steamer. It would not be surprising if the disregard of the laws of civilized warfare by these combatants would lead to serious complications.

Educational papers should not be for the college professor and the superintendent, but for the average teacher who is seeking out light.—*McDonald.*

In the article on "Illiteracy—The Remedy," by Eliza B. Burnz, in THE JOURNAL of July 7, the following sentence referring to the "Cincinnati Alfabet" should have read: "Examination of the following specimen will show that such a purely phonetic print, with new letters, is not easily decified; and it will be seen at once, that a script formed from it could not be used as a means of communication between a phonetically trained person, and one who could only read and write in the ordinary way."

It is proposed to present a bill to the French chamber of deputies debarring all professors and teachers supported by the communities from eligibility to the chamber and the senate. The reason for it is said to be that a considerable portion of the teachers are socialistic agitators.

Very few persons change their methods after they leave school; hence the importance of reaching the methods of the higher school before closing the school career.—*Harris.*

The long tariff battle in Congress was ended August 13 by the house accenting the senate bill, although it is far from satisfactory to the low tariff men. The end was precipitated by the fear if the house did not agree to this bill the senate would defeat all tariff legislation. The measure just passed differs in many ways from the McKinley law. Among the most important features are free wool, lumber, salt, and binding twine; also bagging for cotton, burlaps, and grain bags made of burlaps. The duty on sugar is reduced from 60 cents per hundred pounds to 42½ cents, on woolen goods from 102½ per cent. to 40 and 50 per cent., on plain china from 55 per cent. to 30 per cent., and on ornamental china from 60 per cent. to 35 per cent. The house signified its dissatisfaction with the senate's tariff work by immediately passing separate bills putting coal, iron, fence wire, and sugar on the free list. The action of the senate on these bills will test the sincerity of some of the senators who have been proclaiming loudly in favor of free raw materials. Although the general tariff bill does not in all respects meet Pres. Cleveland's approval it is believed he will sign it.

A teacher of three or four years' experience will get more help from three or four weeks in a summer school than the ordinary pupil gets in as many months at a normal school.—*White.*

Leading Events of the Week.

The Chinese are reported to have repelled an attack by the Japanese fleet on Wei-Hai-Wei and Port Arthur. A strong Chinese fleet has left the coast for the purpose, it is thought, of capturing Japanese transports. Li Hung Chang, although deprived of the yellow coat and peacock feather, marks of high rank, is still acting as viceroy.—The thirty anarchists on trial in Paris acquitted.—All is quiet at Honolulu and confidence in the republic prevails.—The U. S. Senate ratifies a new treaty with China excluding Chinese laborers for a period of ten years.—A statue of Frederick T. Frelinghuysen unveiled in Newark, N. J.—Oates elected governor in Alabama by a majority of 26,000.—The New York constitutional convention refuses to abolish capital punishment.

Editorial Correspondence.

York lies* almost due north of London 188 miles. West of York about 20 miles lies Harrogate where Mr. Thomas G. Rooper, one of the government school inspectors, resides. Accepting his hearty invitation to visit him I spent several days in looking at some of the schools of his district, but more especially the wonderfully interesting scenery. Mr. Rooper was graduated at Oxford in 1870; was appointed a government inspector in 1878, having occupied the interim by teaching. In America he is extensively known as the author of the "Pot of Green Feathers," a study of the child's mode of obtaining knowledge. He has also written "Object Lessons" and "Drawing for Children," and several other educational expositions of interest to the thinking teacher. Having given considerable study to the German schools he is the ablest man I have seen in England to comprehend what the educational movement should be, as well as its need. He is undoubtedly destined to be a leader here.

The English plan is indeed peculiar: (1) It still keeps the plan of "pupil" teachers which went out of existence in America 40 years ago. (2) There are no public high schools, only elementary ones; these cover about the same space as our Primary and Advanced Primary (i. e. Grammar), but they begin earlier, at three years of age, so that boys and girls leave their elementary at about 13 years of age. The gap between the elementary schools and the college is filled with all sorts of pay schools; in America the academy held the secondary ground for many years. There is a royal commission now studying the subject of secondary education and the nation will undoubtedly sustain a system of high schools.

The plan for pupil teachers is this: Boys and girls on finishing the elementary schools (about 13 years of age) desiring to teach may become pupil teachers and be assigned to schools; here they help and study for 4 years, reciting to the teacher, receiving a salary of \$50, rising afterward to \$100 dollars. They are examined by the government inspector and if found qualified may enter a training college for two years. They may, however, get a place to teach and complete the training college course while teaching, and get the certificate. New attention is being given to the pupil teacher question, and if they solve it right they will have a better system than ours. For these pupil teachers correspond to our third and second grade teachers; there is here a power to compel them to advance; in America there is none. Still, the chances here of developing a first-class teacher are very small; in America a teacher may start low and go high—if he simply has a mind to.

I have not visited any training college beside the Home and Colonial on Gray's Inn Road in London and concerning that will write later. But when I say that all the normal schools (called training colleges here) are denominational *i. e.*, Roman Catholic, Wesleyan, Church of England, etc., I shall surprise a good many readers. Suppose the Methodists in America to have a well-established academy with boarding facilities; suppose this to get an appropriation from the state to train pupils as teachers for two years and you have a type of an English normal school! Such a thing could not be done in America, of course. As to the training given I can only speak from hearsay: several graduates here assured me that their whole time was spent upon subject matter and that any such thing as a study of the theory of education was not given or expected. But they don't believe much yet in the theory of education; they take it for granted that boys and girls go to school to learn lessons; they see nothing for the teacher to do but to keep order and hear lessons.

In Inspector Rooper's district (we would say superintendent) lies the city of Bradford containing a population of 200,000, the center of the worsted manufacture; tall chimneys pour out a cloud of smoke and one is made to think it is going to rain; the houses are mainly built of stone. This manufacturing country has been struck heavily by American movements; "we are ruined if you put on a high tariff on worsted," they say; while waiting to see what America is going to do there has been great misery.

I found one school building that pleased me very much. It was composed of a central one-story building about 60 x 40, lighted from the roof, surrounded by 6 or 8 class-rooms; the central building was for singing and gymnastics. The higher classes of this elementary school occupied an adjoining building constructed in a similar way. Mr. Rooper examined every class in a very thorough way; the teachers showed much anxiety for they are paid according to results here. If the results are considered worthy, each pupil

In reading, writing, and arithmetic will get	\$3.00 to \$3.50
" music and needlework	.25 " .31
" geography	.25 " .50
" drawing	.25 " .50
" grammar or elementary science	.25 " .50
" algebra (El.)	.50 " .75
" manual training	.75 " 1.00

But the government will not give more than about \$8.00 per

pupil any way. I am not certain these figures are quite exact; I want to show the principle of the thing. The head-master seemed to be a capable man; the Bradford city inspector was present, but everything is determined by the government inspector. I next visited a primary school in the suburbs of Bradford.

The following day I went to Ripon and visited the ruins of an old monastery called Fountains abbey, founded in the 14th century. It is a wonderful sight, and the most impressive thing I have yet seen. When in full operation this abbey controlled 60,000 acres of land. The old Blue Beard king took possession of all this when he became head of the church. Then I visited the ruins of Bolton abbey and afterwards Kirkdale abbey, the latter in the immediate vicinity of Leeds. It is useless to attempt to tell Americans who see nothing that is more than 50 years old how impressive these remains are. A part of Bolton abbey is still used as a church, so well was it built. This part of the country has been immortalized by Wordsworth in his "White Doe" and other poems. Not far away is Haworth the home of the Brontes, Charlotte, Emily, and Anne.

A. M. K.

Australia.

In Australia, especially in New South Wales, the advantages of a good school education are highly appreciated. In that colony, according to Mr. Coghlan, the government statistician, the progress in recent years has been remarkable. At the census of 1881, out of the 751,468 persons enumerated, there were 195,029, or very nearly 26 per cent., unable to read; at the census of 1891, out of a population (exclusive of aborigines) of 1,123,954 persons, only 244,398, or 21.7 per cent., were returned as unable to read. Included in the number last given, there were 165,781 children of four years age and under, so that there were only 78,617 persons, or 7 per cent. of the population five years of age and over, who were unable to read—a very small proportion when it is remembered that the number includes Chinese, Polynesians, and others who arrived in the colony too late in life to avail themselves of its educational system.

According to the last report of the New South Wales department of public instruction for 1892-3, estimating the mean population of the colony for 1892 at 1,189,775, the population of the statutory school age was 223,948. Of this number, 174,230, or 77.8 per cent. attended state schools, and 49,712, or 22.2 per cent., received instruction in private schools and at home, or else remained altogether untaught. The latest returns of private schools attendance show the total enrollment to be 46,380, of which 33,870 pupils were between the ages of 6 and 14, showing that of the total statutory school population of 223,948 about 208,100 or 93 per cent., were enrolled at state and private schools, whilst 15,848, or 7 per cent., were taught at home, had left school after satisfying the standards of the act, or remained untaught. In addition to pupils of the statutory school age, 29,298 under 6 years of age, and 20,951 over 14 years, were also enrolled for school attendance—37,739 at state schools, and 12,510 at private schools. Thus, of 315,062 children in the colony between the ages of 4 and 15 years, 211,969 attended state schools, and 46,380 attended private schools; while the remainder, 56,713 received instruction at home, had completed their education, or were untaught.

The course of instruction in the various schools is of a most comprehensive character, including, according to class, reading, writing, dictation, arithmetic, grammar, geography, history, drawing, music, Euclid, Latin, natural science, and other subjects. The kindergarten system has been introduced into several of the schools.

The supply of teachers is obtained from three sources—the two training colleges; ex-pupil teachers who do not enter a training college; and young persons, not less than 18 years of age, who have been mostly educated in the public schools of the colony, and who undergo a short course of training under qualified teachers. Few teachers trained outside the colony find employment under the department. The total number of teachers of all ranks, including those in the high schools, was 4,636, the salaries of the principal teachers ranging from £108 to £400 per annum. The total net state expenditure on public instruction in 1892 was £690,870. This does not include the grants for technical and higher education. During the five years ending 1892, New South Wales spent no less than £3,107,695 of public money on the work of primary instruction, a fact not without significance in estimating the probable future of the colony.

The Paris correspondent of the London *Telegraph* says that truculent warfare is being carried on between the white and the colored students of the Colonial school at the French capital. This institution is a nursery for colonial officials, and among the candidates for future posts in Touquin, Senegal, and other places are negroes and half-castes. Several episodes are cited which show that race-feeling runs high in the school. The authorities of the institution are being urgently requested to promote a better understanding among their ebullient young men.

Sing Sing, N. Y., has decided to introduce the kindergarten branch next year as an experiment. Supt. J. Irving Gorton was unanimously re-elected.

Dr. F. Monteser, of the School of Pedagogy of the University of the City of New York, has been invited to deliver a lecture on the French school system before the state normal school at Providence, R. I.

Prof. O'Shea, of the Mankato normal school, is an enthusiastic advocate of child study. His paper read before the child study section at Asbury Park was a most excellent contribution to the literature of that new department of research.

A small sculpture relief of Dr. Henry Drisler the retiring dean of Columbia, has been modelled by Ralph B. Goddard, for the college. A number of bronze replicas have been cast, one of which is placed in the Astor library.

This sculptor has also completed a similar bas-relief of Dr. McCook, of Princeton college.

President David Starr Jordan, of Stanford university, says the institution will open on September 1, with 1,100 students. The university has an abundance of funds to maintain 1,000 or more students and eighty professors indefinitely. It is probably the most heavily endowed educational institution in the world.

Prin. W. H. Lynch, of the Mountain Grove, Mo., academy, has received the \$100 dollar watch offered some time ago by the Springfield *Leader* as a prize to the most popular teacher of Southwest Missouri. He is a wide-awake teacher who makes his influence felt in the educational affairs of his state. Mountain Grove is proud of the academy of which he is the head.

Besides providing for her university which is spoken of in another column and for three normal schools, Missouri gives annually to her elementary public schools, the third part of her total state revenue fund. To this aid from the state is added the local school tax. These schools receive also the income at 6 per cent. upon an endowment of \$2,909,000, and at 5 per cent. upon one of \$237,000.

Prof. Carter J. Harris, emeritus professor of Latin at the Washington and Lee university, who died a short time ago, was, as the Richmond *Dispatch* says, one of the most brilliant and learned men in Virginia. His range of information was almost phenomenal, and, as a conversationalist he was gifted to a rare degree. The assertion was often made by the students that he not only taught Latin in his classes, but everything else. As a teacher he was sincerely loved and respected.

The exercises at Hampton institute, on "Indian Citizenship Day," commemorating the signing of the Dawes bill, which conferred citizenship and the right to land in severalty, were particularly interesting this year. They closed with the singing of "America" by the students, a trio of three races singing the first verse, the Indian students the second, the Negro students the third, and chorus of all races represented in the schools singing the fourth.

Newberg, Or., is determined to keep young people under the parental roof after dark. The city council passed an ordinance some time ago forbidding any person under the age of 18 to wander about the town after 7 P. M. between November and April, and after 8 P. M. during the rest of the year, unless bearing a written permit from, or being in company with, parents or guardians; the penalty is to be a fine of not less than \$5 nor more than \$20, or imprisonment for not less than two nor more than twenty days.

At Pacific Grove, near Monterey, Cal., the students were on hand early before the strikes began. They are at work in the Marine laboratory, or Hopkins institute, which is connected with Stanford university, and in the Summer School for Physical Training under the management of Dr. T. S. Wood, also of Stanford. A summer cooking school under the direction of Miss Whittaker, of San Francisco, has been one of the educational features of the Grove.

It has long been felt that a need exists for the opportunity of securing certificates of proficiency for teachers of shorthand. For many years the writers of the Isaac Pitman system have been able to secure certificates from abroad; but until recently there have not been suitable facilities for the granting of such certificates in the United States. Now, however, an arrangement has been made by which, upon the passing of a suitable examination, certificates can be procured in New York city by phonographers all over the United States. Prin. W. L. Mason, of the Metropolitan School of Isaac Pitman Shorthand, is the official examiner.

"It is a strange thing," Prof. A. S. Cook is reported to have said at the Chautauqua assembly, "that the best teaching of higher English is done in the German universities." Prof. Cook took his bachelor's degree at Rutgers, and subsequently studied at the German universities at Göttingen, Leipzig, and Jena, taking his doctor's degree at the latter institution. He also studied in London. He has taught English at the Johns Hopkins university, where he organized the English department, and at the University

of California. He is now full professor at Yale, where he has been five years.

The Brooklyn Institute of Arts and Sciences will soon have a new home of an architectural beauty hardly to be equaled by any other building in the city. The plans were adopted after careful competition. Prof. F. W. Hooper, the director of the institute, who has made especial study of the architecture of the buildings at the World's fair in Chicago, says that the new institute building will compare favorably with anything there seen. The site of the new institute is on the height of ground which forms, as it were, the backbone of Long Island, nearly 200 feet above the sea, commanding an extensive view.

The proposed consolidation of the Columbian university, of Washington, D. C., with the University of Chicago will mean an appreciable addition to the fortunes of the latter institution. The Columbian university has at present nearly 1,000 students, over one-half of whom are connected with the law department. Dr. J. C. Welling was until recently president of the university. The institution at present has no head. The faculty numbers 110 professors and instructors. The value of the property of the university is estimated at \$750,000.

There are so many candidates for professorships in France that the minister of public instruction sent out a circular to the principals of the higher schools requiring them to influence the parents of students not to destine their sons for a vocation which is already overcrowded. Only those who are prominently fitted to become professors are to continue their studies. Of the 436 candidates holding all required diplomas, only 113 could get positions in the past year. Germany does not seem to be the only country having a right to complain of an over-production of learned men.

The London Charity Organization society has found that out of 50,000 school children examined, 817 suffered from bodily defects and their consequences—weakness of brain or nervous system, low moral tone, and low nutrition, which called for special treatment as regards education. It is estimated that there must be about 11,000 such children in London. It has been recommended that a further investigation be made into the causes of such defects, and special teaching in separate schools for children so afflicted. In Germany, provision of this sort has led to the happiest results. The children have been cured to a great extent, and passed into the ordinary schools.

Benjamin Stoddert Ewell, president of William and Mary college, died a few weeks ago at his home in James City, Va. He was born in Washington on June 10, 1810, and was a grandson of Benjamin Stoddert, the first secretary of the navy. After graduating at West Point in 1832, he held professorships at the military academy and Hampton-Sidney and Washington colleges. In 1848 he became professor of mathematics, and in 1854 president of William and Mary college. At the outbreak of the war he became colonel of the Thirty-Second Virginia regiment, and was afterward adjutant-general to General Joseph E. Johnston. At the close of hostilities he resumed the presidency of William and Mary and held it until his death.

A despatch from Stuttgart, Germany, announces that Prof. C. A. Schlegel, Ph. D., LL. D. died there at the age of 74. He was a native of Stuttgart, and a grand-nephew of August Wilhelm von Schlegel, the critic and philologist. After graduating from the universities of Tübingen and Stuttgart, he came to this country in 1867, and in the following year was appointed to the chair of the German language and literature in the New York normal college. This position he held for twenty years, resigning in 1888 on account of ill health. His German text-books are considered standard authorities in many of our public institutions. He was also the author of numerous works upon philological subjects.

One of the surprises of the recent meeting of the N. E. A. was the announcement that the Prang Educational Company, of Boston, New York, and Chicago, had bought the interest in the White system of art instruction, until recently published by the American Book Company. The drawing books, manuals, and materials of this system will be supplied by them on the same terms as heretofore, and all existing contracts will be faithfully carried out. The character of the Prang Educational Company, and their successful experience as educational art publishers, is well-known to teachers and there is no need of assuring them that the standard of excellence of the White system will be scrupulously maintained by its new publishers.

Col. Parker's summer school at the Cook county normal was a great success, although just at the time when the teachers got ready to start for Elmwood, the blood began to flow there in riots and nearly all railroad traffic was blocked. It was feared that there would be no attendance worth making a beginning. In spite of all this there was an enrolment of 300 representing 21 states, Manitoba, and Japan. There is every reason to believe that in normal times there would have been at least 600 in attendance. Prof. Jackman's science work attracted 214, which,

unless we are greatly mistaken, was more even than last year when there were 500 teachers registered. Already there is a plan on foot for a summer school for next year that promises to be a marvel.

Dr. J. M. Rice, author of *The Forum* articles on "Our Public School System," has just returned from Germany which he visited in order to collect material for a new lecture, the purpose of which will be to point out the nature of the professional training received in Germany, and particularly the work done by the pupil teachers in Prof. W. Rein's renowned School of Practice connected with the University of Jena. He has taken verbatim reports of lessons given by pupil teachers, and of the discussions following these recitations, illustrating the manner in which the recitations are prepared and conducted, and how these recitations are analyzed and criticised. The discussions following the weekly model lessons given by pupil teachers in Prof. Rein's School of Practice represent perhaps the most thorough and scientific criticisms of the recitation to be found anywhere.

While President George E. Hardy, of the New York State Teachers' Association, was at the Saratoga meeting the news reached him of his election as professor of English language and literature in the College of the City of New York. Mr. Hardy is thirty-six years old, was graduated from the college in 1878, and since 1885 he has been principal of grammar school No. 82. Literature has been the study of his life, and for three years he was chairman of the committee on literature of the New York State Teachers' Association, and for the last two years he has been president of the association. He has lectured before many teachers' associations, and his "Five Hundred Books for the Young" is regarded as a standard authority. He has traveled extensively, and has published several articles on literature and educational topics. He is a director of the Catholic summer school, at Plattsburg, N. Y.

A correspondent to the *Outlook* takes exception to the editorial criticism expressed by that journal in the question, "Is a common school system which boasts that it makes no attempt to educate the conscience an ideal preparation of its pupil for self-government?" It says:

"I do not understand that the school does make that boast, *** and I know of no conscientious teacher who does not consider his work well-nigh a failure if his pupils have not learned lessons of cleanliness, faithfulness, and honesty in work, thoughtfulness for the rights of others, patriotism, obedience to authority, and, finally, self-control. The government of our schools has become largely self-government.

"Teachers' conventions are sure to spend part of their time discussing the moral side of the teacher's work; school reports always refer to the character of those selected to train the future citizen. A former pupil's comment on a teacher, that she seemed 'to care more for our brains than for us,' would seem to be the exception to the general rule that teachers are interested in and work for the pupil's whole development.

"I feel sure that your question will cause a twinge of sadness and discouragement to the teachers who read the editorial. While recognizing the many deficiencies and some of the possibilities of our public schools, I fail to see how our schools suggest, far less boast, that in their training they ignore the conscience."

The department of pedagogy of the University of California is doing splendid work for the cause of education in the far West. Dr. Elmer E. Brown who became its head about two years ago is a thorough Herbartian whose investigations regarding the coordination of studies will contribute much to the solution of the perplexing problem. His criticism of the educational ideas of the followers of Herbart, as expressed at an institute meeting, is forcible and timely. He is convinced, he said, that the system should not be adopted outright for American schools; at the same time that rightly understood it could contribute, perhaps more than any other one system, to the development of a truly American pedagogy. Good! We may learn a great deal of the German Herbartians, no doubt, but coming right down to the needs of the schools of this country there must be a rigid Americanization of the pedagogical ideas. There is only one country that has a free and truly democratic common school system and that is America. The peculiarity of its requirements are therefore obvious. Prof. Brown's investigation will be watched with interest; it is along the lines that are in need of broad and thoughtful research.

Analysis shows, says *The Nation*, that the colored people of the South measurably offset the foreign-born of the North. The distribution of illiteracy among the native whites is in its broader features quite similar to that of the total population. The North contains a very small proportion of illiterates, ranging from 0.8 per cent. in Nevada up to 6.8 in Missouri, while in the South, again, leaving Oklahoma out of consideration, the proportion ranges from 5.9 in Maryland, up to 23.1 per cent. in North Carolina. The proportion of illiterates among the native whites of the Western states and territories is smaller than anywhere else, with the exception of New Mexico, where it is larger than in any other state or territory, being not less than 42.8 per cent., owing, of course, to the presence of the large Mexican population. Among the foreign-born the proportion ranges in those states where this element is significant from 7 per cent. in Washington up to 26 in New Hampshire. It is very high in New England—

much higher than in other of the Northern states, owing to the large number of French Canadians. It is low in the West and Northwest, where the foreign element mainly consists of Germans and Scandinavians. The colored inhabitants of the Northern states have a much smaller proportion of illiterates than those of the Southern States. In the North the average is not far from 30 per cent., while in the South it is probably nearly or quite double that proportion. Among the cotton states it ranges from 50 per cent. in Florida, to 72 in Louisiana. In Mississippi, Georgia, Alabama, and the Carolinas it ranges between 60 and 70 per cent.

There are twelve home schools in New York city under the support and direction of the board of education and the American Female Guardian society. Any little child is admitted. The boys, as well as the girls learn cooking, sewing, housekeeping, and elementary school work, which enables them to enter the grammar school. The boys who show proficiency in darning, quilt-making, and button-hole stitching are encouraged to learn tailoring. There are black, brown, and white tots, representing fifteen nationalities. Most of them have to be washed, dressed, shod, and fed by the teachers before they can be taught anything. Last year's report shows how much beneficent work has been done among the sidewalk children of the metropolis. Children on register, 5,871; average attendance, 2,164; teachers employed, 60; dismissals to public schools, 501; children taught cooking, 284; nationalities represented, 15; penny provident funds, 6; visits made by teachers, 4,527; loaves of bread used in schools for lunches, 51,777; barrels of oatmeal, 20; barrels of crackers, 12; barrels of garments, 200.

The outcome of the sensible move of Mayor Schieren, of Brooklyn, which, as THE JOURNAL reported some time ago, aims at a thorough improvement of the school system of that city, will be watched with interest. The committee appointed to investigate the school systems of progressive cities to compare them with that of Brooklyn, and then to report as to the most advisable changes needed, consists of able men who have given much thought to school administration and for the greater part have been engaged in educational work for many years. They are President Swanstrom, of the board of education; Mr. William Harkness, president of the board of assessors, and Mr. John K. Creevey, both former members of the board; President Cochran, of the Polytechnic institute, President Backus, of the Packer institute, President Levermore, of the Adelphi academy, and Mr. J. C. Kelley.

The committee will examine particularly the kindergarten system, manual training, and military drill, but does not intend to confine itself at all to these subjects. Brooklyn has been aroused by President Swanstrom's criticisms of the schools and the support and emphasis given them by the New York *Times*. Other cities in the state, particularly Buffalo and New York, will do well to follow the example set by Brooklyn. Eternal vigilance and steady progress are essential to the health of a school system.

An interesting decision has been handed down by Judge Stowe, of Pittsburg. Miss Ella F. Kennedy, principal of the Banksville public schools, was tried for assault and battery for whipping Harry Aiken an obstreperous boy of seven. The testimony showed that the boy had been punished by his teacher, Miss Hartley, for misconduct. He then swore at the teacher, and was refractory, and the principal was sent for. The child was still unmanageable, and she gave him a second whipping.

Judge Stowe, in charging the jury, read court decisions setting forth that a teacher stands in the same position toward a child as a parent, and has a right to punish for misconduct. The question is if the punishment is malicious, brutal, or excessive, or if it is moderate and done to correct and reform the child. Continuing, he said he was sorry to see that the rule of punishment is not practiced as much as it ought to be. The many children that are brought into court for various offenses demonstrates that something is wrong somewhere. He could recollect when a whipping in school was more common than it is to-day, and that generation is none the worse for it. "When I was a boy," he added, "in the village I was raised it was no uncommon thing for a boy to be punished severely. Others were not so severe. My experience when I was taken out to the yard to be punished was that the upstrokes were heavier than the down strokes, but I never got any unless I deserved them."

The jury returned a verdict of not guilty and placed the costs on the prosecutor.

Prof. John Dewey has contributed a thoughtful and deeply interesting article to the *Popular Science Monthly* for August. It is entitled "The Chaos in Moral Training." Regarding the effects of punishment upon children Prof. Dewey says:

"A few samples tell, in different language, the almost uniform tale of the outcome of the appeal to force. 'I rebelled with feelings of hatred and of desire for revenge. It seemed to me unjust, imposed by sheer force, not reason.' One tells the story of being coaxed by older boys to steal some tobacco from his father. 'I was caught and given a whipping, no questions being asked and no explanation given. The result was certainly a fear of punishment in the future, but no moral impression. I thought my father whipped me because he wanted the tobacco himself, and so objected to my having any of it.' Another reports that the impression left by punishment was a mixture

of a feeling of personal indignity suffered—a feeling so strong as to blot out the original offence—and a belief that she was punished for being detected. Another thought she was punished because her father was the stronger of the two; another, that fear of harm to self induce people to do right things; another tells that he longed for the age of independence to arrive so that he might retaliate. One upon whom fear of God was freely impressed formed the idea that if he could put off death long enough, lying was the best way out of some things. One child (five years old) went in the front part of the house after she had been forbidden, and, falling, hurt herself. She was told that this was a punishment from God; whence she drew the not illogical conclusion that God was a tyrant, but that it was possible to outwit Him by being more careful next time, and not falling down. One peculiarity of the method of inducing morality by creating fear is that some parents, in order to prevent lying, deem it advisable to lie themselves; e. g., talk about cutting off the end of the boy's tongue or making him leave home, etc. But there is hardly any need of multiplying incidents; all the reports reinforce the lesson which moralists of pretty much all schools have agreed in teaching—that the appeal to fear as such is morally harmful. Of course, there are a number of cases where good results are said to have come from punishment, but in such cases the punishment was incidental, not the one important thing; it was the emphasis added to an explanation."

Discussions on Art Education.

A valuable feature of this summer's work at the Martha's Vineyard Summer Institute has been the holding of a series of open conferences on art education and subjects related thereto. There is always a large gathering of the most progressive people in the country at the Martha's Vineyard school, and the announcement of these conferences attracted an unusually large number of directors and teachers of art from different parts of the country. Prominent school superintendents and artists joined in the daily discussions. The subjects considered were:

Present tendencies in education and the relation of art instruction thereto.

The relation of art instruction to nature study.

The relation of art instruction to the teaching of history.

The bearing of art on industrial training.

Theories of color, and educational methods of teaching color.

The discussions of these subjects were serious and spirited and brought out strongly many valuable points in regard to public school work. The consensus of feeling seemed to be that the present movement of educators toward placing the study of the child at the basis of the teachers' work, and toward bringing the child himself into closer and more familiar contact with nature is of great advantage to art instruction; and that public school teaching along art lines should be so conducted as to emphasize the spiritual side of science study and train the child's higher powers with as much care as his powers of sense perception. It was clearly brought out that the world's art is the embodiment not merely of the knowledge of matter and force which man has acquired, but of this knowledge assimilated and made alive by strong personality on the part of the worker. This should be kept in mind in our educational affairs; special pains should be taken to cultivate the feeling and imagination, even from the very beginning, and to encourage the child's creative activity along the lines which express the best there is in him. Art instruction should serve to cultivate the disposition for helpful service to others. It should thus, of necessity, include much more than simply the practice of drawing from models and copies. A most important phase of the work should be its assistance rendered to the teaching of geography, history, and literature. Photographs and other representations of good works of art of all times should be used as freely as possible in all grades, to make children acquainted with the characteristic ideas of different nations and different eras, how these have developed with changes in social and political conditions. The art examples thus studied should be of the best, just as we give children the very best of the world's literature. In their own handwork they should be led to produce things beautiful as well as useful,—to recognize and enjoy what is beautiful and to add what they can to the enjoyment of others. In this endeavor after beauty in elementary hand-work there is no need of sacrificing accuracy and encouraging slipshod work. The higher aim includes good workmanship.

In teaching color it is necessary to have standards in some material form which will be practically always the same and available for reference. As modern teaching of English begins with the individual, experimental use of language, and proceeds later to the scientific analysis of language, so the study of color should begin with individual observation and experiment with standard hues in order to develop the color sense, and prepare for the laboratory study of color in the higher grades. The study of color should be co-ordinated all the way with the study of form and drawing, of natural science in all its branches, and, so far as practicable, with all industrial training.

It is to be hoped that such conferences as these will be held much more frequently. It is through such means that progressive teachers, coming together and comparing notes, are enabled to be still more wisely progressive. And the schools reap the harvest.

Every tissue of the body is made stronger by the use of Hood's Sarsaparilla.



HIGH SCHOOL (CONCORD, N. H.)

We are indebted for the above illustration to B. F. Sturdevant Co., Boston, Mass.

German-American Teachers in Council.

The National German-American Teachers' association held its twenty-fourth annual convention at Newark, N. J., July 10-14. The aim of the association, as expressed by its founders, is '(a) the education of truly free American citizens, (b) propaganda for education according to nature in home and school, (c) the cultivation of German language and literature beside English, (d) advancement of the intellectual and material interests of German teachers in the United States. Among its presidents have been men, distinguished educators, whose names are known to all American teachers; Supt. Hailman, for instance, Dr. Klemm, of the bureau of education, and Dr. Noldan, of St. Louis. One of the monuments of the work of the association is the National German-American teachers' seminary at Milwaukee.

The Newark convention was not as well attended as it might have been if it had not been for the interference of the Chicago strike and the conflict of dates with the N. E. A. meeting. Pres. von der Heide, of Newark, was in the chair. Several papers of particular interest to German-American teachers were presented. Dr. C. M. Wahl, of New York, spoke on "Reform of Instruction in Modern Languages." Dr. F. M. Monteser, of the school of pedagogy of the University of the City of New York, read a paper on "The School System of France," of which an abstract will appear in a later issue of *THE JOURNAL*.

The treatise presented by Dr. Karl Kayser, of the Newark high school, on "Theory and Practice" was full of sound pedagogical suggestions. He criticised the different educational aims proposed by historic and modern thinkers from the standpoint of scientific pedagogics. The idea of Herbert Spencer, he showed, lowered the ideal of education by making it purely eudemonistic which is simply another name for utilitarianism. The child is not simply to be prepared for the society into which he is born. Education must strive for a higher goal. It must be progressive, and in order to be that must create new and better conditions in its course. What, then, shall education be? The definition was given in the words of Waitz, the distinguished Herbartian writer: "Educating is the systematic exertion of the influence upon the inner life of another, whereby a definite form is to be given to this inner life and is really given."

"In order to influence the inner growth of the child," Dr. Kayser went on, "the laws of mental development must be known to the educator. The aim is the formation of a characterful moral personality; and the principle that must guide the educator's work toward this end can hence be none other than wisely directed self-activity of the pupil."

The educational means that the school employs are instruction and training. Instruction requires constant pedagogic reflection. Its success depends on the qualities of the subject matter, of the method, and of the teacher. The selection of the subject matter is too often purely guided by utilitarian views; and the ideal is forgotten. As to method and the teacher two extremes are found: one is over-valuation of method, and the other over-valuation of the teacher's personality. Basedow and Pestalozzi put too high a value on method. The reaction against this idea led by men like Lessing and Herder led to the belief that all depended simply on the personality of the teacher.

That there must be one universally valid principle of scientific

method in instruction is evident when we consider that the mind works according to definite laws, and can hence be effectually influenced only by following the way indicated by these laws. But a complete scientific method is impossible, for scientifically normal conditions that would permit its rigid application are impossible. Still the teacher must be thoroughly at home in the theory of method to rightly apply the valid underlying principles. It is true that a practitioner who knows next to nothing of the theory of teaching but has a warm heart and the right spirit is a greater success than the pedant who judges his worth by the number of pedagogical books he has read. But there are many dangers hanging above the practitioner, and it is best to be well prepared to meet them by making a careful study of the theory of the work. That the teacher who is a success without the knowledge of pedagogics will be a far greater one with it, has been abundantly proven by experience.

The *New York Times* mentions a suggestive school-room incident. The teacher of a large class in one of the New York schools once said to the pupils who were leaving for the summer: "I want each of you to search for a perfect leaf and bring it to me when school re-opens. Remember it must be perfect—every tooth right, not to speak of mold or blight or discoloration, nor a vein broken." They searched faithfully, but none found a perfect leaf, though they learned a great deal about leaves while they examined them thus carefully.

Pres. G. Stanley Hall finds that much of the work done in the kindergarten is not at all suited to the nature of the little child, referring particularly to paper weaving with narrow paper strips, pricking, bead work, stick laying with tooth-picks, and in general all occupations with small articles. Experiments have brought out the fact that a large proportion of the kindergarten pupils had neurotic diseases brought on and developed by this kind of work.

Editor of SCHOOL JOURNAL: I want to say just a word of thanks for *THE JOURNAL* in general and the annual summer number in particular. That number alone is worth many times the price of the paper for the entire year to anyone who will think as he reads, and is ambitious in his profession.

Manchester, N. H.

Prin. WM. H. HUSE.

Death Rate of Teachers.

The question whether teachers die earlier than other people has been answered by the statistics of Prof. Loof, of Basel, Switzerland. The percentage of persons who reach the age of seventy is said to be as follows:

Clergymen, 49.	Merchants, 30.
Farmers, 42.	Teachers, 28.
Government officials, 36.	Physicians, 24.

Thus clergymen seem to have the best chance to reach a high old age, although the saying is that "the good die young." Teachers may find comfort by comparing their death rate with that of their brethren in the medical profession. In Saxony the average age of teachers who died in the past ten years was about 54½ and in Bavaria 47 years.



Martha's Vineyard Summer Institute.

The seventeenth session of the Martha's Vineyard institute which closed last week was remarkably successful. In the matter of attendance all previous records were surpassed, as a total of 701 was reached. The Bay state showed her appreciation of her school by sending 363 pupils. New York followed with 58, Pennsylvania with 37, and New Hampshire and Rhode Island with 30 each. The record for 1892 shows 633 in attendance. It is not difficult to explain what called so many to the school. First, the location attracts many who by coming to the island escape the much greater heat of the mainland. Then the courses offered are rich and the instructors well-known as successful teachers in different parts of the country. The school is well up to the times in emphasizing science teaching, manual training, physical training, and form study, drawing, and color. Very careful work is also done in botany and microscopy.

Many of the professors have been connected with the school for years. Dr. J. D. King has conducted the work in microscopy for fifteen years; Prof. Burgess, of Washington, in botany fourteen years. The department in music has been in charge of Prof. G. H. Howard, of Boston, since 1882, and Miss Watson began to teach painting that same year. Dr. Wm. A. Mowry, the present president of the institution, has been in charge for eight years. Miss Lucy Wheelock has directed the kindergarten work since 1886, too. Mr. A. W. Edson, manager of the school of methods, Prof. C. E. Meleney, treasurer, Mr. A. C. Boyden, clerk, and Dr. C. W. Emerson, of the school of oratory, have been there seven years. Others, like Prof. Dorchester, Mr. Schwartz, and Mr. Murdock, have been connected with the institute for a number of years.

From a company of between two hundred and three hundred teachers present when the record was taken the following items are presented concerning the various classes of teachers present: more than sixty primary teachers reported, fifty-eight grammar school teachers; more than twenty taught in ungraded schools, fifteen were grammar school principals, and at the same session fifteen high school teachers were present. In addition there were specialists, normal teachers, academy teachers, and college professors.

Interesting facts about salaries were also brought out. The lowest salary reported is \$150, four receive less than \$200, sixty-five less than \$400. Sixty receive between \$400 and \$600, fifty between \$600 and \$1000, fifteen between \$1000 and \$1500. Fifteen receive between \$1500 and \$2000, four \$2000 each, two \$3000 and one \$5000. The average of the entire number was \$678.48.

The great number in attendance this year found Agassiz Hall altogether too small. Plans are already drawn for an auditorium large enough for years to come. Vigorous efforts are also making to strengthen materially the academic departments in the natural sciences for the season of 1895.

Defective Eyesight Among Children.

It has been ascertained that in the French public schools 24.2 per cent. of the pupils are shortsighted; in the German 35 per cent., and in the English only 20 per cent. According to M. Martin, in the *Journal de Medicine*, of Bordeaux, the percentage is highest in the rhetoric and philosophy classes. The hygienic condition of the school does not seem to affect the percentage, and he thinks that want of physical exercise is the cause of the trouble. By modifying the work of the classes the proportion of shortsighted scholars at the College of Giessen has fallen from 26.6 to 17 per cent. in five years. M. Martin recommends reasonable periods of physical exercise between the hours of study. While preventing shortsightedness, these will not detract from the proficiency of the scholar.

In London the authorities of the board (public) schools have again called attention to the increase of shortsightedness among the children of the metropolis. They point out the effects of needlework and other occupations on the eyesight and dwell particularly on the subject of lighting of school-rooms. What is needed it is suggested, is a general investigation by competent persons into the lighting of the elementary schools all over the kingdom. Many of the paupers in the workhouses of England are there because, from some physical defect, such as bad sight, they cannot earn their bread. Sound eyes are not less important than sound education. To have sound eyes, children must be educated in properly-lighted rooms. Still it is true that a large proportion of the schools of the country are defective in this respect.

Supt. Hogg, of Fort Worth, Texas, introduced a number of resolutions at the recent meeting of the State Teachers' Association, calling for a systematic course of instruction in the schools "which shall embrace not only a broader patriotism, but a more extended moral instruction, especially in regard to the rights and duties of citizenship, the right of property, the security and sacredness of human life." These resolutions were commended to the attention of the N. E. A. Governor Hogg, of Texas, ought to take a course of education of the kind suggested by the patriotic Supt. Hogg. It is truly the schoolmaster's reign. To him, not to the politician, the country must look for the realization of its hopes.

"Why don't they call upon some of these women?" said one gentleman to another as they walked away from one of the meetings of the Council at which an interesting debate had been held.

Experiment Versus Theory.

[SPECIAL CORRESPONDENCE.]

The Clark University summer school held last month was in some respects sufficiently unique to render it educationally historic.

The instructors, from President Hall down, were mainly the professors who are heads of departments in the university. They have all taken distinguished post-graduate courses supplemented by travel and careful research along their respective lines. So thoroughly are they imbued with the importance of child study, that phenomena of child nature, which to an ordinary observer appears trivial and unimportant, are by them deemed worthy of careful and continued investigation. Indeed their attitude in regard to the questions investigated seemed rather like that of an enthusiastic learner than that of the staid college professor. Special attention was paid to the subject of psychology, and the psychological laboratory and university library were placed at the disposal of the students.

In the lectures given there was a noticeable absence of dogmatic assertion and in its place a simple statement of facts and an exaltation of scientific experiment over personal opinion. For example, in dealing with the much discussed problem of vertical writing, the lecturer traced very carefully the history of the discussion from its inception. He gave a detailed analysis of the investigations made in Germany and elsewhere, in regard to positions of pupil and copy-book, form of desk, etc. He cited experiments by Schubert, Daiber, and a host of others, experiments made upon thousands of children and extending over a number of years. These were illustrated by school desks, samples of work done, and photographs of pupils under varying conditions.

In conclusion he said, "The question is still open. The oblique central position with slanting script is more natural for the hand, and probably is the best for rapid writing. The vertical script is more natural for the eye and the writing is more legible. The results of experiments thus far seem to be in favor of the vertical script and especially so on hygienic grounds."

In every subject a similar effort was made to bring under contribution the vast results of scientific research throughout the world, and to select the very best as a preparation for further investigation.

It is held that for sure educational building there must always be a foundation laid in experiment, but experiments are usually exceedingly costly, and by this method their necessity is reduced to a minimum.

Such a system of pedagogical investigation, universal in its scope, and scientific in its method demands on the part of the student an immense amount of hard work with no great certainty of any startling discovery as a reward, the only certain return being the pure cultured effects of the work.

That it possesses special attractiveness was evidenced by the fact that the attendance at the eight-hour lectures per day increased steadily to the end, notwithstanding the warm weather. It was also shown by the unanimous approval expressed by the two hundred students in attendance, most of whom were university graduates holding high educational positions.

Ottawa Normal School.

S. B. SINCLAIR.

Harvard's Summer School.

The registration was not as large as was expected, although a most attractive program had been announced. There were about 350 students in attendance. At least one hundred more would certainly have come if it had not been for the interference of the strike which, as Prof. Shaler is reported to have said, played havoc with Eastern affairs in general, and not the least with the registration in the summer school. As is well known, the Harvard school depends mainly upon the West for its support, and it is natural that many failed to come from there owing to fear of blockade in Chicago.

The English and psychological departments reported an appreciable gain over last year. In English, there were forty-three students, while in 1893 there were only twenty-two. The students of psychology numbered twenty-two. In Anglo-Saxon, there were eight, whereas in German, fourteen. The French department, with its present eleven students, acknowledged a loss of six. Chemistry had grown from forty-five in '93 to fifty-nine. In physics there were forty-five persons at work, compared with forty-seven in '93 and thirty-six in '92. Geology had dropped from thirty-three to fourteen, and draughting had increased from five in '93 to eight. Since 1892 electrical engineering has had a steady decrease, this year the registration having been only four. Mathematics showed a slight gain—from eight to ten.

In Prof. Hanus' course on pedagogics there was a fall from fourteen, in 1892, to eight, in the present year. This decrease is accounted for through the introduction of Prof. Muensterberg's courses in psychology—a subject which Prof. Hanus treated of in his course during 1892. However, it is acknowledged that the standard of the class this year was higher than ever. Most of the students were experienced academy teachers and principals of normal schools.

TEACHERS' MEETING.

At the general meeting of the summer school section of the Harvard Teachers' Association held on August 2, the question of secondary education in relation to admission requirements was thoroughly discussed. There were six speakers representing the three departments of English, modern languages, and physical science. After each department was heard from, general discussion took place, in which all the officers and teachers in the school participated.

Prof. Paul H. Hanus gave an account of the growth of the Harvard Teachers' Association from the time when, four years ago, a few members of the summer school suggested an alliance of students and instructors for the purpose of friendly intercourse. There has been inner growth, he said, and at present the association stands for more than fraternality, and represents an attempt to spread an idea of the most helpful and modern educational methods. The 200 members are wide-awake students and teachers, eager to advance the standards of higher learning. The Harvard summer school it was shown played an important part in the development.

Mr. Byron S. Hurlbut, of Harvard university, expounded the English requirements for admission and outlined the "Harvard methods" in English. Mr. W. R. Vickroy, of St. Louis followed with an account of some practical methods in his own teaching. He thought that boys ought to be encouraged to write as they speak, rather than to imitate a style which is not their own. He pleaded for simplicity in composition. Principal Dean, of the Willimantic, Conn., high school and Mr. J. Y. Bergen, Jr., of the English high school, Boston, participated in the discussion.

Prof. Hugo K. Schilling, of Harvard, and Miss Kate W. Cushing, of the high school at East Boston, presented papers on the teaching of modern languages. Prof. Schilling explained the attempts of Harvard examiners to bring out thought, and not mere book-learning, upon the examination papers. The discussion was carried on by Mr. Frank M. Gilley, of the Chelsea, Mass., high school, and Prof. N. S. Shaler, of Harvard.

Physical science was presented by Prof. Thomas French, Jr., of the University of Cincinnati. He complained of the meager requirements of entrance examinations in science and pleaded for an improvement corresponding to the advances already made in English and the languages. Mr. H. V. Kepner, of the high school at Pueblo, Col., said that if Harvard raised her standard of requirements in such a way that the high schools in the East were able to meet the advance, the Western schools would follow Harvard's lead.

The following resolution was adopted: Resolved, That the summer school of the Harvard Teachers' Association is in hearty accord with the action taken by the National Council of Education at its recent meeting in appointing a committee to consider what changes should be made in the programs of elementary schools, and pledges its hearty support to that committee in its attempts to better the conditions of such schools.

University of the State of Missouri.

This university, which is located at Columbia, Boone county, Mo., has received from the state since February, 1891, by direct appropriation and in interest on its endowment, \$1,525,000. Probably no other state has ever given its university so much money in so short a space of time. The interest-bearing endowment is larger than any state university, except one, in the United States. The endowment, and the value of buildings, grounds, and other equipment, amount to more than \$2,200,000. The buildings and equipment are new and up to modern demand. The expenditure for them in the last two years has exceeded \$550,000.

All departments are open to men and women alike. The first honors in 1892-93 and in 1893-94 were won by women. There is no preparatory department, but provision is made for at least one year of graduate work in English, Latin, Greek, modern languages, history, political science, philosophy, mathematics, astronomy, physics, geology, biology, and law.

Dr. R. H. Jesse, who is the president of the university, writes: "We advise students that are not prepared to enter, or that do not intend to work, to go elsewhere. We do not seek either idlers or preparatory students; but we cordially invite to come all that are morally and intellectually ready to profit by our work."

The university began at Columbia in 1839. Courses of academic instruction were begun in 1841. A normal department was established in 1867. The college of agriculture and mechanic arts and the school of mines and metallurgy were made a department of the university in 1870—the school of mines and metallurgy being located at Rolla. The law department was opened in 1872; the medical department, in 1873; and the engineering department, in 1877. The experiment station was established here, under act of Congress, in 1887. The Missouri state military school was created a department of the university in 1890. On January, 1892, the main building of the university at Columbia was destroyed by fire. In the following March, the legislature gave for buildings and equipment \$236,577. In March, 1893, this fund was increased by a second appropriation of \$264,000, and by \$25,000 additional for a new building at Rolla.

New Books.

The object of Oliver R. Willis in preparing *A Practical Flora for Schools and Colleges* was to meet the needs of students that require something more than a scientific presentation of the subject to arouse their interest and enthusiasm. He has therefore shown the practical aspects of the vegetable world and its relations to the needs of every day life, giving something of its history and its economic features. In doing this he had to choose his material, for if the book included the whole vegetable world it would be many times larger than it is. The author made a careful selection of the most important food-producing trees, shrubs, and herbs, including ornamental plants, fruits, nuts, medicinal plants and those which furnish oils, dyes, lumber, textile fabrics, etc. These are arranged according to orders and genera with the appropriate scientific descriptions. The book differs from the usual botanical text-book in having the paragraphs giving the history, use, etc., of the plant just below the descriptive paragraph. The teacher will see what a great advantage this gives, as it relates the study to geography in such a way that the pupil cannot fail to be interested. Thus, under wheat, after the scientific description, are given its geography, etymology, history, cultivation, use, and the principal marts from which it is exported. The book is the outgrowth of successful school-room experience. Teachers will not be slow to see the advantage of this combination of the scientific and the practical. Numerous fine illustrations, showing plants and parts of plants, adorn the pages. (American Book Co., New York, Cincinnati, and Chicago. \$1.50.)

The discussion of the relative merits of vertical and slanting handwriting has occupied a prominent place in the columns of educational journals during the past year, and most teachers are pretty well acquainted with the arguments put forward by both sides. John Jackson, F. E. I. S., M. C. P., the leading advocate of vertical writing, sums up the whole case for his side in the book entitled *The Theory and Practice of Handwriting*, a practical manual for the guidance of school boards, teachers, and students of the art, with diagrams and illustrations. Among the topics considered are writing in relation to hygiene; upright or slanting writing, which? size, continuity, shape, etc.; headline or blank copy-books, which? desks, books, slates, pens, ink; analysis of alphabet and words; methods and instructions for class teaching, history, and revival of vertical writing, etc. The appendices contain specimens of handwriting, an essay by Dr. Schubert, extracts, and an index. The author of this book pleads the cause of vertical writing with great ability. Teachers who are interested in the subject will find no better presentation of it than in this volume. It contains an abundance of illustrations including a frontispiece portrait of the author. (William Beverly Harrison, New York.)

Those old Gradgrinds in the past who made so much of the three R's had no conception of the grand opportunities they were losing. It has now dawned upon the world that one of the things that the school must do—yes, *the* thing if it would fulfil its mission—is to develop character. This cannot be done effectively by advice, threats, or the conning of moral maxims. It is accomplished best by presenting concrete examples before a child. No one can estimate the effect the story of Washington and the hatchet has had in stimulating truth-telling among American youth. *Ethics of Success*, by William M. Thayer, is a book made up for the most part of anecdotes of noted people with appropriate comments, and intended for a reader in the middle grade of schools. Samuel B. Chapin, in his introduction to the volume, recommends it because it holds up to the youthful mind the highest ideals. That is the pith of the whole matter. One good story from a noble life is worth whole volumes of sermonizing. The reading of this book in the class and the discussion of the incidents by teacher and pupils cannot but have a beneficial effect. The volume contains a number of standard poems by the best authors, besides portraits of Longfellow, Whittier, Morse, Beethoven, Bancroft, and others. (A. M. Thayer & Co., Boston.)

It is hard for one who studies a science to comprehend the vast amount of toil that has been required to bring it to its present state of perfection. For the beginnings of the science of mathematics it is necessary to go back to the dawn of history. Various nations have contributed their parts to this magnificent science, and it is the boast of mathematicians that each step forward has been a real advance. *A History of Mathematics*, prepared by Florian Cajori, professor of physics in Colorado college, has just been published. It gives the early contributions to the science made by the Babylonians and the Egyptians and the important discoveries of the Greeks. Then is considered what was done for the science by the Romans, Hindoos, and Arabs and by Europe during the middle ages, and later by Descartes, Newton, Euler, Lagrange, Laplace, and others. Following is treatment of the development in recent times of synthetic geometry, analytic geometry, algebra, analysis, theory of functions, theory of numbers, and applied mathematics. The study of the history

of mathematics is of the highest benefit to the student, showing him what has been accomplished and what the brightest minds have failed to accomplish. Thus he will not be likely to waste his time trying to solve problems whose solution is impossible. In the preparation of this history Prof. Cajori consulted a great many works on the history of mathematics, most of them covering the work of nations or certain phases of that work. As a general history of the science it will be found very acceptable, as it is well written and covers most points the student would want to know. (Macmillan & Co., New York and London. \$3.50.)

In the book bearing the title *Conflict of the Nineteenth Century—The Bible and Free Thought* the Rev. Thomas Mitchell seeks to defend the Bible from the attacks of Ingersoll and other free thinkers. Mr. Mitchell inherited his love of Bible study from his mother and his tendency to scientific investigation from his father. He is therefore peculiarly fitted for the investigation of the problem of man's relations to the Supreme Being, the greatest that can engage the attention of the human mind. The first question which arose was: What was taught in the prophetic Scriptures in regard to the design and destiny of the world and man, and the events through which both must pass in order to complete those designs? This he accomplished, at least to his own satisfaction. The second question was: Have those prophetic events been fulfilled, and in the predicted order and according to the predicted periods of time covering them? He found the historic to be the complement of the prehistoric, or prophetic, and therefore concluded that the Creator of the world was the author of Scripture. These questions are of the highest interest to all healthy minds. The author treats them in this book in a way that will interest the general reader. The book is calculated to arouse much thought. (The Universal Book Co., New York.)

The student of the French language as well as the student of general literature will be profited by reading a recently published work, *Histoire de la Littérature Francaise*, by Alcée Fortier, professor in Tulane university. The volume is small (12mo. 351 pages) which rendered conciseness absolutely necessary; it contains sufficient biographical and critical matter to make one fairly well acquainted with all the principal authors of this great literature. After tracing the origin of the French language, the author considers the development of the drama, fables, allegorical, didactic, and lyrical poetry and the history of the different kinds of prose. The history of the literature by centuries is given, beginning with the sixteenth. The book is intended for students in the higher schools and in colleges. (Henry Holt & Co., New York. Teachers' price, \$100.)

The principal features of the text-book entitled *Complete Practical Bookkeeping* are that the student is not confronted with dry rules and useless theories, but after a plain presentation of the leading principles, is set to work on exercises that gradually develop the science and practice of bookkeeping, each new step being fully illustrated and explained, no pains having been spared to give illustrations that are in themselves models of excellence. The results are not given in the text-book, except in a very few cases, but to those teachers who desire it, they will be furnished with each copy of the book. Explicit instructions are given to the student before beginning a new exercise or set, thus saving the teacher much time and annoyance, and at the same time encouraging the pupil to rely upon himself. The first four sets are not connected, each being complete in itself. Following these are two sets illustrating a continuous business and the admission of a partner. After these are three sets illustrating the admission and withdrawal of partners. The longer sets in the advanced part of the book are actual transactions and illustrate bookkeeping as it will be found in business. However, the teacher may regulate the length of the course of study to meet the needs of his pupils, by dividing these sets and having part only worked. A hand-book to accompany this volume is in course of preparation. (The Practical Text-Book Co., Cleveland, Ohio.)

George Sand's *La Petite Fadette* has been abbreviated and edited with notes for Heath's Modern Language series, by F. Ashton-Binns, M. A., Balliol college, Oxford, England. This is one of the stories in which she depicts so delightfully the peasants of Berry. Throughout the style is intentionally rustic and archaic, though it does not lack grace and finish. In condensing the author has endeavored to keep the thread of the story. (D. C. Heath & Co., Boston.)

Vol. IV., No. 34 of Denison's series is *Scrap Book Recitations*, No. 10, by H. M. Soper. In the preparation of this collection it has been the distinctive aim to insert humorous selections that are particularly adapted for use in public and professional entertainments as well as home readings. Many of them have been recited with success by pupils. All shades of the ludicrous in city and country life have been presented. A few serious pieces have been included especially appropriate for Washington's birthday, Thanksgiving, and other holiday entertainments. (T. S. Denison, Chicago. 25 cents.)

Experience has proved that physiology, if properly presented may be made an interesting study in the lower grades. There are good reasons why the younger pupils should be made acquainted with the construction of the body and the laws of health. The most potent of these is that a large majority of children leave school early and they should acquire this knowledge before they go out into the world, so that it will not be necessary to get it by dear experience afterward. In Hutchinson's physiological series, *Our Wonderful Bodies and How to Take Care of Them*, will be found well graded, books written in a simple style that children can understand, and from a high scientific standpoint, the author being very prominent in the medical profession in New York. The first book is intended for primary grades and the second for intermediate and grammar grades. The importance placed upon the teachings of the effects of alcoholic and other stimulants may be seen by the large amount of space devoted to it. The books are appropriately illustrated and the chapters have questions at the end, reviewing the matter contained in them. (Maynard, Merrill & Co., New York. First book, 30 cents; second book, 50 cents.)

A very complete and practical treatment of *Frébel's Square* will be found in the recently published volume by Dr. Albert E. Maltby, principal of the Pennsylvania state normal school at Slippery Rock. These lessons on paper folding and cutting are the simple transcript of the author's work in four of the state normal schools of Pennsylvania and are put forth in the hope that they may be of service in showing the true spirit of advanced kindergarten work. The illustrations are numerous and serve in every case to help explain the text; none of them are superfluous. Many have been made full size from the author's drawings of the foldings from four-inch squares. One unacquainted with this work in looking over this book is astonished at its possibilities. The combinations of color, form, and design are innumerable, while the training the pupil receives for the useful arts is of great value. From simple geometrical forms the work proceeds to those more and more complicated and this leads naturally up to designing and the making of conventional figures like stars, crosses, etc. At the end are applications of the work in the production of maps, flags, army badges, and other things. The directions from beginning to end are such that one could take up the work and master it without further assistance. Those who are unable to take a regular kindergarten course in school will find it of great value. (The Butler *Eagle*, Butler, Pa.)

If it were desirable to select a representative of the improved modern classical text-book one could scarcely choose a better one than the revised edition of *Xenophon's Anabasis*, edited by Professors William W. Goodwin and John Williams White, of Harvard university. It contains the first four books of that famous history, narrating the mustering of the Greek army, the march into the great king's country, the battle of Cuxana, the death of Cyrus, and the retreat from the neighborhood of Babylon to Trapezus. The introduction in the present edition, written by Prof. White, seeks to give the information on history and on military antiquities which is needed for the understanding of the *Anabasis*. In the new dictionary to the *Anabasis*, prepared by Messrs. White and Morgan, and an important part of this volume, the student will find given not only the meaning and use of words, but also many matters of history and antiquities not discussed in the introduction. The notes aim merely at aiding beginners in laying a solid foundation for future scholarship.

There is a map of the route of the Greeks during their advance and retreat, besides many illustrations scattered through the volume. The book is adapted to the latest edition of Goodwin's Greek Grammar and to Hadley's Greek Grammar (revised by Allen). (Ginn & Co., Boston. Mailing price, \$1.65.)

Prof. Noah K. Davis, of the University of Virginia, in preparing his *Elements of Deductive Logic*, seems to have avoided the pitfalls into which writers on this science are likely to fall. It is clear, concise, and the matter is admirably arranged. Many college professors have given the book their unqualified endorsement. It is designed as a text-book for undergraduates and comprises the body of approved logical doctrine, so that in a limited time the student may acquire a rounded knowledge of the fundamental forms of thought, be profited by the excellent discipline of the study, and prepared for the pursuit of philosophical sciences. The natural severity of the subject is mitigated by copious illustrations. A praxis has been added to each chapter, in which many standard exercises have been retained, and many new ones introduced. The arrangement is progressive, so that the student may master the difficulties easier. No treatment of deduction is attempted. The author contemplates preparing another book covering this branch of the subject. (Harper & Brothers, New York.)

At a certain intellectual stage of a race the tendency is to embody their ideas in literature, and the first form that this takes is not prose but verse. The people have not yet become separated into classes and there is such community of ideas and feelings that the whole people form an individual. Their poems will always be an expression of the mind and heart of the people as an individual, and never as the personality of individual men. Though they have been written by individual men, the authors count for nothing, and the verse has therefore come down to us anonymous. Such were the *Old English Ballads*, which were often sung or chanted, with a dance accompaniment. A volume of these has been selected and edited by Prof. Francis B. Gummere, of Haverford college, for the Atheneum Press series. To the student of ballad literature the long introduction in this volume will be very valuable, as it discusses what Grimm, Herder, Wordsworth, Schlegel, and other critics have said of this form of literature, besides tracing its origin and development. Fully two-thirds of the volume is devoted to the ballads themselves, and they form an interesting collection. The appendices, notes, and glossary will give all needed assistance for the study of the ballads. (Ginn & Co., Boston. \$1.35.)

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General Notes.

Leach, Shewell & Sanborn have just published the following books: Mead's Elementary Composition and Rhetoric, by Prof. W. E. Mead, Wesleyan university; Wells' Elements of Geometry, revised edition, by Webster Wells, professor of mathematics, Massachusetts Institute of Technology; and Tilden's Grammar School Geography. The latter is descriptive, industrial, and commercial, and is provided with excellent maps and illustrations. In this book geography is taught with direct reference to the business of life. It will no doubt be a very popular text-book.

If all the typewriters should be destroyed and could not be replaced what a difference it would make to the business world; this machine has now become a necessity, and it is no wonder then that great efforts should be made to perfect it. An invention, wonderful for its simplicity, is the type shuttle of the Hammond machine. It is not much more than two inches in length and yet contains ninety characters. The engraving of all these characters on one piece insures perfect and permanent alignment. In addition to this the writing of any language is rendered possible by the interchangeability of the type shuttles. Full description may be obtained of the Hammond Typewriter Co., 403 East 62nd street, N. Y.

One author asserts that "music is the fourth great natural want of our nature—the first food, then raiment, then shelter, then music." The importance of music in the school has not been sufficiently appreciated in the past, but it is now. The John Church Co., New York, Cincinnati, and Chicago, furnish some excellent books for teachers and schools, among which are: Paragon of Song, a new book for singing schools, singing classes, conventions, and institutes; Treble Clef Choir, for women's voices; Elite Organ Album, a collection of preludes, offertories, and music for all occasions; and Music Tablet, with a condensed view of the material of composition.

What the pupil learns by his own observation and experience he will remember; mere text-book learning, especially in natural science, is at a discount. In studying physics and chemistry it is better to have apparatus that the pupil can use for himself. Eimer & Amend, 205 Third avenue, New York, will furnish everything necessary for the chemical and physical laboratory. They make glass and metal apparatus to order, according to drawings.

There is at present a large demand for thoroughly trained commercial teachers, and with the addition of commercial high schools to the public school systems of our

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cities this demand will be greatly increased. The purpose of the normal course of the Drexel Institute, Phila., is to afford teachers the advantages of a thorough commercial training under the most favorable conditions. The environments and associations of the institute, the opportunity afforded for studying its many departments and methods, its library and museum privileges, and its courses of public lectures and concerts add very largely to the benefit to be derived from its normal courses.

Teachers who expect to secure positions at the opening of the school year will have to be expeditious. Probably the quickest way to secure a good position is through a teacher's agency. The Union School Bureau, Kerr & Huyssoon, managers, 2 West 14th street, N. Y., has a long record of successful work. No advance registration fee is charged; charges depend on results. The positions already filled number 3,486.

The Baltimore & Ohio R. R. Co. will sell round trip excursion tickets to Denver, Col., from all points on its lines east of the Ohio river, July 19, 20, and 21, good for return on trains leaving Denver July 27, August 2 and 25; tickets will also be sold to Denver August 8, 9, and 10, valid for return passage on trains leaving Denver August 19, 25, and September 13.

The rate from New York will be \$47.75; Philadelphia, \$47.75; Baltimore, \$47.40; Washington, \$47.40, and correspondingly low rates from all other points.

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For more detailed information, address A. J. Simmons, N. E. P. A., 211 Washington street, Boston, Mass., or C. P. Craig, G. E. P. A., 415 Broadway, New York, N. Y.

Thirty or forty years ago most of the business of New York was done on the extreme lower end of the island; it has been moving northward year after year. At present the St. Denis hotel, Broadway and Eleventh street, is centrally located so far as the publishing and dry goods businesses are concerned. Teachers coming to New York will find it a good hotel to patronize, as the accommodations are ample and the prices moderate.

Probably there are few schools that will not want to add something to their supply of maps, charts, globes, etc., at the beginning of the year. Full information can be obtained in regard to all sorts of school supplies by writing to Peckham, Little & Co., 56 Reade street, N. Y.

The science of chemistry has been of incalculable benefit to humanity, particularly in the preparation of food. Bovinine is one of the food preparations that has met with a great and well deserved success. For adults whose digestive organs have become deranged, and for feeble infants and children, it has scarcely a rival. It builds up bone and muscle, creating new blood daily.

A large, handsome Map of the United States, mounted and suitable for office or home use, is issued by the Burlington Route. Copies will be mailed to any address on receipt of fifteen cents in postage by P. S. Eustis, Gen'l Pass. Agent, C., B. & Q. R. R., Chicago, Ill.

T. Y. Crowell & Co. have in press the third edition of Prof. Richard T. Ely's recent work on socialism.

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